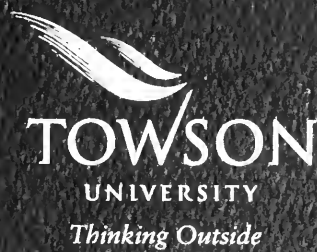


Graduate Catalog

2009-2010



Towson University

Graduate Catalog

2009-2010

Accreditation

Towson University is accredited by the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104; 267-284-5000. The university is a member of the Council of Graduate Schools in the United States and the Northeastern Association of Graduate Schools.

The purpose of this catalog is to provide information about the university and the existing resources and services and current curriculum programs, rules, regulations and policies. Catalog information is to be used as an informational guide and practical resource. The university, however, in its discretion and from time to time, may amend the information contained in this catalog by modification, deletions or additions to it. Accordingly, the catalog and information it contains do not constitute a contract. Please visit the Graduate School Web page at <http://grad.towson.edu> for the most updated information.

Towson University's policies, programs, and activities comply with federal and state laws and University System of Maryland regulations prohibiting discrimination on the basis of race, color, religion, age, national origin, sex, disability and sexual orientation.

Towson University Graduate Catalog
Volume XLI 2009-2010





Academic Calendar

2009-2010

Information about registration dates and times can be found online at <http://onestop.towson.edu>.

Fall Term 2009

August

- 31 Classes and Change of Schedule period begins.

September

- 7 Labor Day NO CLASSES.
- 8 Change of Schedule period ends. Last day to drop a course with no grade posted to academic record. Last day to add a course.
- 15 Deadline for submitting graduation application for January.

October

- 1 Last day to withdraw from first 7-week courses with a grade of W.
- 19 Mid-term and end of first 7-week courses.
- 20 Second 7-week courses begin.

November

- 11 Last day to withdraw from term courses with a grade of W. Last day to change Pass or Audit grading options.
- 16 Last day to withdraw from second 7-week courses with a grade of W.
- 26-29 Thanksgiving holiday—no classes.
- 30 Classes resume.

December

- 11 Last day of classes (last Saturday classes meet December 12).
- 14 Final examinations begin.
- 19 Last day of examinations and end of term.

January

- 10 Commencement.

2 ACADEMIC CALENDAR

Minimester 2010

January

- 4 Minimester begins.
- 4-5 Minimester Change of Schedule period.
- 11 Last day to withdraw from Minimester courses.
- 18 Martin Luther King Jr. Day (no classes).
- 22 Minimester ends.

Spring Term 2010

January

- 25 Spring classes begin.
Change of Schedule period begins.

February

- 2 Change of Schedule period ends. Last day to drop a course with no grade posted to academic record. Last day to add a course.
- 15 Deadline for submitting graduation application for May.
- 22 Last day to withdraw from first 7-week courses with a grade of W.

March

- 14-21 Spring Break.
- 22 Classes resume.
- 22 Mid-term and end of first 7-week courses.
- 23 Second 7-week courses begin.

April

- 65 Last day to withdraw from term courses with a grade of W. Last day to change Pass or Audit grading options.
- 13 Last day to withdraw from second 7-week courses.

May

- 11 Last day of classes (last Saturday classes meet May 10).
- 12 Final examinations begin.
- 18 Last day of examinations and end of term (tentative)
- 19-21 Commencement (tentative).

June

- 15 Deadline for submitting graduation application for September.

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Towson University

History

The institution known today as Towson University opened its doors in 1866 in downtown Baltimore as the Maryland State Normal School—the only institution devoted exclusively to the preparation of teachers for the public schools of Maryland. The first class consisted of 11 students.

In 1915 the school moved to Towson. By 1935 it established the Bachelor of Science degree in education and changed its name to Maryland State Teachers College at Towson. In 1946 it introduced an arts and sciences program. The first graduate program (M.Ed. in Elementary Education) began in 1958. The institution expanded its offerings in the arts and sciences in 1963 and became Towson State College.

Towson was granted university status on July 1, 1976, in recognition of its development into a comprehensive university. In 1988 Towson State University joined the University System of Maryland. On July 1, 1997, Towson State University became Towson University, a change that reflects its evolution from a state-supported to a state-assisted institution. The first doctoral program (Au.D. began in 2001). The University has now graduated nearly

120,000 students. Since 1960, Towson University has awarded more than 15,200 advanced degrees.

Towson University enrolls and graduates more undergraduate students from the region than any other institution. Enrollment for the 2008 fall term was 17,272 undergraduates and 3,839 graduate students.

The Campus

The university is situated on a beautifully landscaped 328-acre campus in the suburban community of Towson, Md., just eight miles north of downtown Baltimore. Students have easy access to the many cultural advantages of the city of Baltimore—the Peabody Conservatory of Music and Library, the Enoch Pratt Free Library, the Walters Art Museum, the Baltimore Museum of Art, Meyerhoff Symphony Hall, the Lyric Theatre, Center Stage and many other cultural centers necessary for a well-rounded university experience.

Campus buildings and facilities give excellent support to the various university programs. The inside back cover of this catalog provides a map of the campus, and Appendix A describes the campus facilities.



Letter from the Dean of the College of Graduate Studies and Research

Towson University introduced its first graduate degree program, a master's in elementary education, in 1958. Since then, the Graduate School has grown to offer nearly 70 graduate degrees and certificate programs, including four doctoral degree programs, serving nearly 4,000 students. The College of Graduate Studies and Research continues to help thousands stay ahead of change and in top demand by offering programs in the liberal and fine arts, teacher education, allied health fields, computer and information technology, natural sciences, social sciences, various professional disciplines and interdisciplinary areas.

The full-and part-time programs are led by nationally prominent faculty who combine theory and applied, practical knowledge while encouraging collaboration on research projects and creative productions. Students have the opportunity to learn in an environment complemented by the diverse perspectives and experiences of their peers who hail from a variety of geographic locations, cultures and ethnic backgrounds.

As Maryland's Metropolitan University, Towson offers a valuable, yet affordable education that blends advanced levels of study with innovative conveniences. Graduate students may register online, utilize academic and career services, and enjoy small class sizes and an accessible faculty. Classes are offered both during the day and in the evening at the suburban Baltimore campus and at off-site locations in Harford, Baltimore, Montgomery and St. Mary's counties. Some of the graduate programs are now available partially or fully online.

In 2007-2008, Towson was awarded nearly \$24 million in research grants and contracts. These funds have enabled TU to offer research opportunities to Towson students, support the scholarly activities of our faculty, and engage in partnerships with business, community and government agencies.

As the demands of the work force change, the College of Graduate Studies and Research will strive to prepare students by offering a sound balance of theory and application, and continue doing what we do best—bringing teaching and learning together to provide an excellent learning experience.

Chao Lu
Acting Dean, College of Graduate Studies and Research
Associate Vice President, Research

THE COLLEGE OF GRADUATE STUDIES AND RESEARCH

Enrollment in the Graduate School has continued to grow, with the 2008 fall student head count at more than 3,800. A team of administrators and staff in the college is committed to providing students with quality educational programs at the post-baccalaureate level and the highest level of student support services.

Overall, the unique aspect of TU's graduate education is providing students with cutting-edge courses and programs of study to develop the specific skills and knowledge needed by career professionals. TU has accepted the challenge set out by the Maryland Higher Education Commission (MHEC) to provide innovative graduate courses and programs that respond to specific state, regional and national work-force demands. Moreover, many enrolled graduate students are working full time, so graduate courses are offered at convenient times and at off-campus sites as well as at the main TU campus.

TU currently offers nearly 70 graduate programs at the certificate, master's and doctoral levels. In addition, the College of Graduate Studies and Research will develop more applied graduate programs as the needs of students, businesses and the community continue to grow. Faculty from across the university community and professors of practice work together in graduate education. Many of the faculty members are renowned scholars who encourage graduate students to collaborate on faculty research projects and creative productions.

To provide the best possible education for its graduate students the College of Graduate Studies and Research is guided by its vision and mission for graduate education.

Graduate Studies Committee

The Graduate Studies Committee, a committee of the University Senate, determines Graduate School policy and is responsible for graduate curriculum and standards. The voting membership comprises six members of the faculty (one from each academic college), two graduate program directors and two graduate students. The dean and associate dean of the College of Graduate Studies and Research and the director of the library are ex-officio members. The Graduate Studies Committee also hears student appeals that are related to academic matters. The appeals process is described in Appendix E.

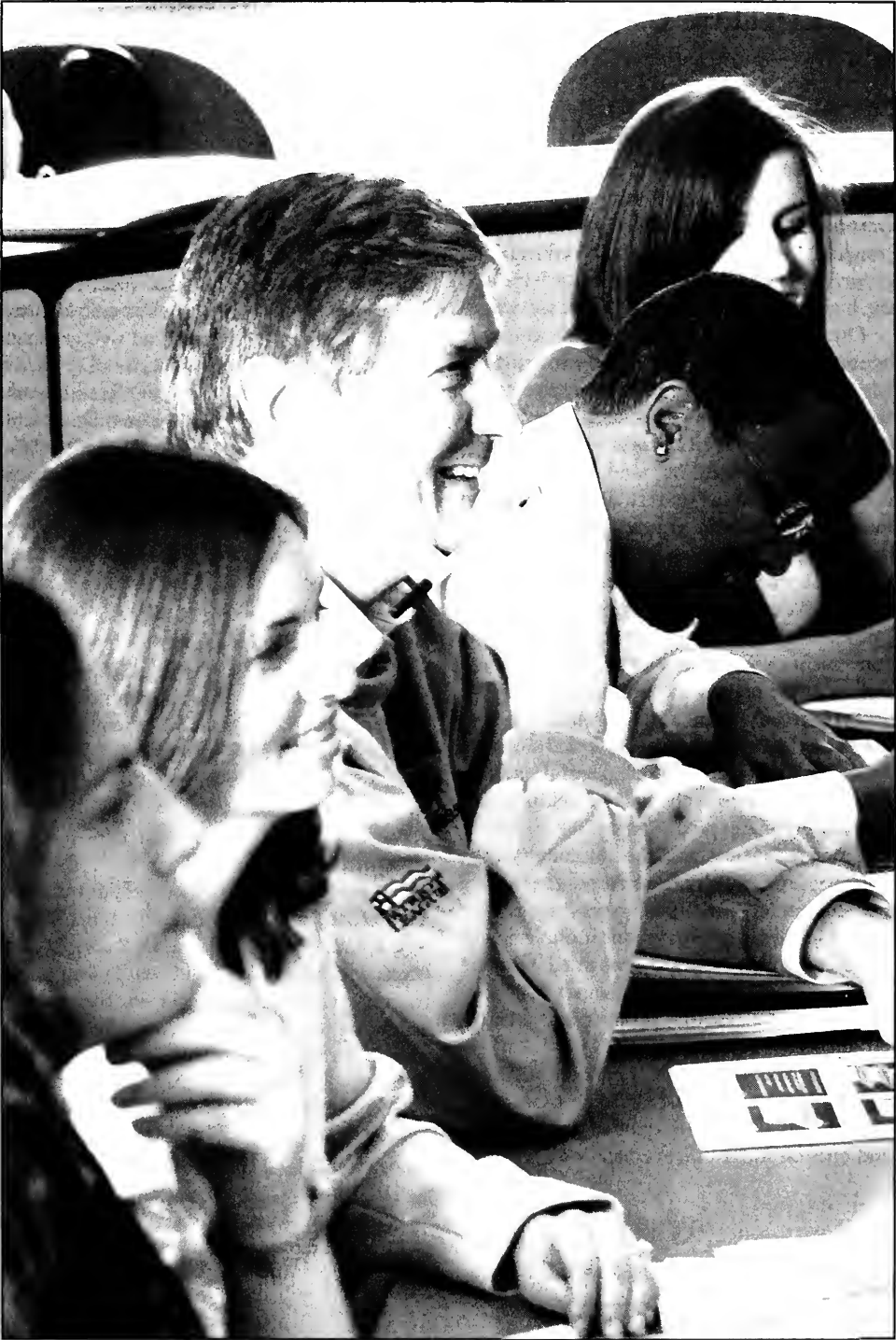
Administration

The dean and staff of the College of Graduate Studies and Research administer the Graduate School and implement the policies established by the Graduate Studies Committee. On all matters of curriculum and academic requirements for individual graduate programs, the faculty contacts are the graduate program directors.

Graduate School Office

The office, located on the second floor of 7800 York Road, is open Monday through Thursday, 8 a.m.–6 p.m. and Friday, 8 a.m.–5 p.m. (except for scheduled holidays). During registration, the office is open in the evening according to the registration schedule. For more information, contact:

Graduate School Office
Towson University
8000 York Road
Towson, MD 21252-0001
410-704-2501
grads@towson.edu
<http://grad.towson.edu>



Procedures and Policies

APPLICATION AND ADMISSION TO THE GRADUATE SCHOOL

The application process is administered through the Graduate School. To request a complete admissions package, contact the Graduate School at 410-704-2501, 1-888-4TOWSON or grads@towson.edu. To apply online, please visit <http://grad.towson.edu>.

The Graduate School at Towson University admits applicants whose academic and personal qualifications give promise of success in graduate study. The applicant must hold a baccalaureate degree from a regionally accredited college or university, or from a Maryland college or university that is approved by the Maryland Higher Education Commission, or the equivalent of this degree from another country. Any student taking classes on the Towson University campus or any off-site location administered by the University System of Maryland must meet the university's immunization policies prior to registration.

Full Admission

Students admitted to full status must meet the basic minimum requirements of the Graduate School plus the additional requirements of the individual program.

In order to meet the basic minimum requirements for full admission to the Graduate School an applicant must have 1) earned a baccalaureate degree with a minimum GPA of 3.00 (on a 4-point scale) in either the cumulative units of the degree or the last 60 credits of the degree or 2) earned a master's degree or doctorate from a regionally accredited college or university.

In cases where the above minimum standards are not met, the last 60 credits may include courses taken beyond the baccalaureate degree that are 300-level or higher. Courses

used for admissions purposes may not be applied toward the graduate degree.

Since some individual programs may have additional requirements and enrollment restrictions, meeting the above minimum requirements may not ensure admission to a specific program. Please refer to the program listing for specific requirements.

Conditional Admission

Admission with conditions may be granted to applicants whose academic achievement does not meet the standard required for regular admission or whose department requirements are incomplete. See individual program descriptions for specific requirements. Students admitted to a program with conditions must satisfy requirements and correct any deficiencies as determined by the program director. The letter of admission contains instructions requiring the student to discuss the conditions with the program director. Requirements that must be completed to continue in the program, and the timetable for completing the requirements, are listed on a letter prepared by the program director and sent to the student.

Exception to Policy

An applicant who is a professional with significant work experience in a field relevant to the program and whose undergraduate degree was obtained at least 10 years prior to his or her application to the Graduate School may petition the dean of the Graduate School for an exception to policy regarding the minimum GPA. This request should include documentation of at least five years of successful work experience in the relevant field and at least two letters of recommendation supporting the request from relevant supervisors. The petition will be reviewed by the program director who

10 PROCEDURES AND POLICIES

will assess the applicant's qualification for the program and will inform the dean in writing of his or her recommendation for conditional admission.

Non-Degree Enrollment

Students may elect to enroll for graduate courses as non-degree students. Students generally choose non-degree status when 1) their academic goal is not completion of a degree or certificate program; 2) they wish to begin course work prior to final evaluation of their credentials for admission to a program; or 3) they have been denied admission to a program but choose to take selected courses. Non-degree students should be aware that many departments limit entry to courses at the 600 level to fully matriculated students enrolled in a specific graduate program. Degree seeking candidates have priority for registration above non-degree students. Non-degree students who wish to take courses above the 600 level may do so after a transcript evaluation. Requests for an evaluation should be directed to the associate dean. Some courses are available to degree-seeking candidates only. Students should consult the department if there are questions. A limit of 12 units, taken while a non-degree student, may be applied to a degree program with the approval of the program director. Students holding an F1 Visa are not eligible for non-degree status. Non-degree students are not eligible for financial aid.

International Applicants

To ensure the timely processing of visa documents, the application and all accompanying documents for international students living abroad must be received no later than April 15 for the fall term and October 15 for the spring term. Applicants who are residing in the United States should submit their materials no later than July 1 for the fall term and November 15 for the spring term. Applicants must also adhere to program-specific deadlines.

The Graduate School requires that applicants who have attended institutions outside the United States submit to the Graduate School an official copy of their educational

records plus an assessment of their records from a credential-evaluating service center. The assessment should include a course-by-course evaluation of the student's academic records, including the degree received and GPA. This assessment usually takes three to four weeks and should be sent directly to the Graduate School.

Among the authorized credential evaluation service centers are:

AACRAO

American Association of Collegiate Registrars and Admissions Officers
Foreign Credential Services
One Dupont Circle, NW, Suite 520
Washington, DC 20036
t. 202-296-3359 f. 202-822-3940
www.aacrao.org

ASCISS

American Service Center for
International Students and Scholars, Inc.
P.O. Box 250
Hunt Valley, MD 21030
t. 410-370-8092 f. 410-785-6638
www.asciss.org

WES

World Education Services
Bowling Green Station
P.O. Box 5087
New York, NY 10274-5087
t. 212-966-6311 f. 212-739-6100
www.wes.org

English Proficiency

International students must provide verification of their English competency by submitting an English assessment report for either the IELTS or TOEFL testing systems.

Unless otherwise noted, students who have earned their baccalaureate degree or a higher degree from an accredited U.S. college or university may be eligible to have the requirement of TOEFL and IELTS scores waived.

IELTS (International English Language Testing System)

A minimum score of 6.0 is required for admission, except where noted. Information regarding the IELTS testing system is available online: <http://www.ielts.org>. Also, students residing in the United States may write to the testing center directly or contact:

IELTS International
825 Colorado Boulevard, Suite 112
t: 323-255-2771
f: 323-255-1261

Global inquiries: Please see the IELTS web page for more information.

TOEFL (Test of English as a Foreign Language)

A minimum score of 550 on the written test or a total score of 79 on the iBT (Internet-based) test is required for admission.

Information about the TOEFL test is available online at <http://www.toefl.org>, or students may contact ETS directly:

TOEFL
Educational Testing Service
Princeton, NJ, 08540, USA.

Towson's institution code is 5404. A departmental code is not needed.

Towson University is a test site for TOEFL and also administers an institutional TOEFL in the fall, spring and summer. Information can be obtained from Towson's English Language Center at 410-704-2552. Visit <http://grad.towson.edu/admission/international/index.asp> for additional visa and immigration information.

Pre-Degree for International Students

The Graduate School offers international students the opportunity to apply for admission prior to the receipt of the bachelor's degree. There are certain conditions under which international students may apply for the status of pre-degree. Pre-Degree admission does not guarantee that a student will be eligible to enroll for the intended admit term. All deadlines and requirements must be met, including

but not limited to academic and immigration requirements, in order for a student to enroll at the university.

Students receiving their final degree reports by June 15 (October 1 for students seeking spring admission) should plan to fax a copy of their academic records, including the diploma statement to the Graduate office. Students receiving their final degree reports in July should plan to request admission to the following spring term.

Required: At the time of application, students will submit a credential evaluation of their academic records and a letter of verification from their college or university validating that the student will be eligible for graduation at the completion of the current term. The final transcript indicating conferral of a bachelor's level degree will be evaluated by the Graduate School. If students wish to have the I-20 form express mailed, express mailing charges and administrative fees associated with this process will be assessed. Students admitted prior to the receipt of their bachelor's degrees who are unable to obtain the necessary documents to begin course work at Towson before the start of their admit term may request a deferment to the next term. The request must be in writing to the Graduate International Admissions Office. A deferment letter is sent to student showing the new starting term. The International Student and Scholar Office (ISSO) is notified and can issue a new I-20 form to the student, if and when the student requests, for the next term. Deferment I-20 forms will not be express mailed from the Graduate School.

Admission Prior to Receiving Baccalaureate Degree

Admission to some programs may be granted to seniors in their final term. Undergraduate work through the first term of the senior year is evaluated; therefore, transcripts submitted must include all grades through that term. Admission standing is subject to cancellation or change if the admission credentials remain incomplete or do not meet the requirements for admission upon receipt of the final transcript. Final transcripts showing degree confer-

12 PROCEDURES AND POLICIES

ral must be received by the Graduate School by the end of the student's first term of enrollment. Some programs have accelerated master's degree programs in which undergraduates are allowed to begin their graduate work. These are described in the individual program sections.

Graduate Work by Seniors at TU

Seniors at TU may register for a maximum of 6 units of graduate study if they meet the following criteria: 1) the graduate courses must be in excess of the units required for the bachelor's degree; 2) the student submits to the Graduate School Office, in advance of registration, a written request specifying the graduate courses requested; and 3) the student maintains a 3.00 or higher cumulative GPA. Payment for the courses is separate from that of undergraduate courses taken in the same term and is at the graduate tuition rate. The courses may be transferred later to the student's graduate record.

Dual Career Program

Towson University offers the Dual Career Program for post-baccalaureate students who wish to pursue a second bachelor's degree or an undergraduate certificate in teaching or premedicine while enrolled in a master's degree program at TU. Students who are interested in taking graduate and undergraduate studies in different fields at the same time may contact the Second Bachelor's Degree Program office in Enrollment Services at 410-704-3296 for further information.

Validation of Undergraduate Degree

An applicant enrolled for courses is not allowed to register beyond the first term if the transcript validating the baccalaureate degree is not received in the Graduate School Office by the end of the student's first term; no refund is granted, and the student's application is removed from the graduate files. A new application and fee must be submitted if the student wishes to take courses for graduate credit at a later time.

REGISTRATION AND FEES

Registration

A schedule of courses for the coming term and registration information are available online at <http://students.towson.edu>. Only students admitted to a graduate program without conditions may register for 700- and 800-level courses except with special permission of the Graduate School.

Deferred Registration after Admission

Students admitted to most degree programs may defer registration for initial courses for up to one year, with the consent of the graduate program director. If enrollment in courses does not occur within one year, or the student does not inform the Graduate School Office of another starting date, the applicant's records will be removed from the files and the student must reapply for future enrollment.

Class Attendance Policy

1. Students are expected to attend all classes. Consistent attendance offers the most effective opportunity for students to understand concepts, materials and expectations of those courses in which they are enrolled. Although some courses do not use attendance as a criterion for grading, there are others where in-class participation is an integral part of the course. Examples include, but are not limited to, seminars and courses that require public speaking, laboratories, language learning, group discussion and student teaching. Frequent absences from these types of courses, whether excused or unexcused, may affect the final grade.

Faculty members who use absences as a factor in grading must explain in the course syllabus what effect even an excused absence might have on the evaluation of a student's work.

2. It is policy of the university to excuse the absences of students for the following reasons:

- Illness or injury when the student is unable to attend class
- Religious observance where the nature of the observance prevents the student from attending class
- Participation in university activities at the request of university authorities (e.g., intercollegiate athletics, forensics teams, Dance Company, etc.)
- Compelling verifiable circumstances beyond the control of the student

Students requesting an excused absence must provide documentation to the instructor two weeks prior to the scheduled absence when known in advance or as soon as possible when not known in advance.

3. Absences that do not fall into any of the categories outlined in item No. 2 are unexcused. Faculty may set a limit on the number of unexcused absences.

4. Students who are absent from class are responsible for any missed work, assignments or assessments (e.g. quizzes, tests, papers, etc.). Faculty members are required to allow students with documented excused absences to make up missed work or assignments when this is feasible. When the nature of the assignment makes this impossible, faculty should attempt to make a reasonable adjustment of the assignment.

Students who will be representing TU at events, conferences or other official activities should obtain a Notification of Absence from Class Form from the Office of Student Activities, University Union 217, to be given to their instructors to verify the excused absence. Students are encouraged to notify faculty of anticipated class absences as soon as they learn they will be missing class. Faculty should use discretion regarding making up missed assignments and the ramifications of missing certain class periods.

Important! Students who fail to appear for the first two class sessions, or the first session of evening classes, may forfeit their space in class. Instructors have the right to release these spaces to other students wishing to add the class to their schedules. Students who lose their spaces must officially withdraw from the course through the Registrar's office to avoid earning an FX grade for non-attendance.

Continuous Enrollment

Students are expected to register for courses on a regular basis. Previous degree candidates who have missed two consecutive terms in one academic year must be reactivated for enrollment through the Graduate School Office. (See the special policy on continuous thesis registration under Graduation Requirements.) If two academic years for degree students or five academic years for non-degree students elapse during which a student does not enroll in courses for graduate credit, the student's records are removed from the Graduate School Office files. If the student desires to take graduate courses after this action, he or she must initiate the application process as a new applicant.

Full-Time and Part-Time Status

A student who registers for 9 graduate units in the fall, spring or summer term is considered a full-time student. One who takes fewer units is designated a part-time student. The maximum load for full time students is 12 units.

Adjustments will be made as necessary for research students, teaching assistants, students in internships and graduate assistants in order for their academic load to comply with the policies approved by the Graduate Studies Committee.

Auditing Courses

Students may audit courses that carry graduate credit with the written consent of the instructor. Any graduate student may audit a course through the 600 level. Courses at the 700 level may be audited only by students admitted to a degree program. Audited courses appear on the university record as AU and

14 PROCEDURES AND POLICIES

may not be used to repeat a course for which credit has already been earned. Audited courses may not count as part of the unit load or be applied toward the master's degree. The regular tuition rate applies to audited courses.

Visiting Graduate Students

A student who is a candidate for a graduate degree at another college or university may take graduate courses at Towson University. To complete an admission application, the student must present a letter from the graduate dean of the home institution indicating that the student is in good standing and that credit earned at TU is acceptable toward his or her degree.

Inter-Institutional Enrollment

Students admitted to graduate programs are eligible to take courses at other University System of Maryland schools. Units earned at a host school will be placed on the student's Towson record with the grade earned. Tuition and fees for any such courses will be paid at Towson. Regulations governing this type of enrollment and the form for registration may be obtained in the Graduate School Office. The form must be signed by the Graduate School after appropriate approval is obtained. Interinstitutional enrollment is not available for the summer session or Minimester.

Joint Degree Programs

Programs in Accounting and Business Advisory Services and Business Administration are operated as joint programs with the University of Baltimore. See program descriptions for details.

Course Numbers

Each department has one or more three- or four-letter codes preceding the three-digit course classification number. The three-digit course number indicates the following level:

100-499	undergraduate courses
500-699	graduate courses available to all post-baccalaureate students. (500-599 are courses that are

700-799

cross-listed with upper-division undergraduate courses)
graduate courses available only to fully admitted graduate students
800-899 graduate research and thesis courses

500-level Courses for Graduate Credit

A maximum of three courses at the 500-level may be included to meet the requirements for a graduate degree. A course taken for undergraduate credit may not be repeated at the 500 level for graduate credit.

POLICIES ON ACADEMIC PROGRESS

Grading System

- A: 4 grade points
- B: 3 grade points
- C: 2 grade points
- F: 0 grade points

S or U (satisfactory or unsatisfactory)—used primarily for thesis or field-based courses or others with special recommendation from a program director with approval by the Graduate Studies Committee. The grade of S in graduate courses denotes that work of 3.00 level or higher has been completed. A grade of U is given to students whose work is below 3.00-level quality. A student cannot graduate with a U in his/her program.

FX—assigned when the student registers for a course but does not attend, or fails to withdraw officially from the course by the published last date to drop the course.

I (incomplete)—assigned at the end of the term because of illness or other reasons beyond the control of the student. Unless the course is completed within 180 days, the grade becomes F. It is the responsibility of the student to make arrangements to complete course requirements for removal of the I.

IP (in progress)—assigned for the thesis continuum. When the thesis is completed, the IP grades are changed to S (satisfactory) or U (unsatisfactory).

W (withdrawn)—assigned when the student withdraws from the course according to policy.

International students: Please be aware that FX and W grades do not contribute toward the Full Course of Study requirement for F-1 status.

Academic Standing

Good academic standing in a degree program requires a minimum 3.00 GPA for all courses taken for graduate credit whether or not they are required for the degree. Students must achieve a grade of B or better in prerequisite courses. Good academic standing is necessary to transfer course work and to graduate.

Should the degree student's average fall below a 3.00 (including prerequisite courses), a letter of academic warning will be sent. The GPA must be restored to 3.00 within 9 units completed or within one year from the term in which the GPA fell below 3.00, whichever comes first. A student on academic probation who does not restore the GPA to 3.00 as required will be withdrawn from the degree program. The 3.00 average may be restored by repeating courses or by taking additional courses. With approval by the graduate program director, no more than two courses beyond those required in the degree can be used to raise the GPA. All requirements for the program must be completed within the time limitation policy.

Repeating Courses

Courses for which a grade has been awarded may be repeated only once. The grade of W does not replace a previously awarded grade. When the course is repeated, the student receives the units for the course (counted once) and the higher of the two grades. Grades for courses taken at other institutions may not be used to replace grades for courses completed at Towson. Courses taken for undergraduate credit may not be repeated for graduate degree credit.

Withdrawal from a Course

When a student drops a course within the change of schedule period, no grade is recorded.

If the course is dropped after the change of schedule period, but within the period to drop with the grade of W, the W grade will be recorded on the permanent record. Students who do not officially drop a course during the established time periods will receive the grade earned in the course (A, B, C, F) as determined by the instructor.

Students with documented medical problems or verified circumstances beyond their control may petition the associate dean of the Graduate School to drop a course after the established deadline and receive a grade of W. Documentation must accompany the petition. It is the responsibility of the student to inform his or her instructors of his or her petition to withdraw for medical reasons. If approved, grades of W will be recorded for all unearned grades (FX). Earned grades (A, B, C, F) will not be changed.

Admission to Second Program after Academic Dismissal

A student academically dismissed from a degree program is not eligible to re-enter the same program, but may apply to another degree program. No additional admission requests will be accepted from a student academically dismissed from two programs. A student academically dismissed from a degree program because of a low cumulative average may not utilize courses toward a degree that were taken prior to and including the term in which the average fell below a 3.00.

Advising

At the time of admission to a graduate program, the student is assigned a faculty adviser by the department responsible for the student's program of study. Registration for a newly admitted student begins with a visit to the academic adviser, who will assist the student with information about specific courses and degree requirements, and the development of a program of study. The student should consult with the adviser before registration each term.

Program of Study

Each degree student must follow a program which is approved by the student's adviser and the program director, and which conforms to Graduate School policy. Courses taken prior to planning the program of study can be included only if approved by the program director. The adviser's and program director's approval are needed for any revisions. The program of study may include no more than three courses at the 500 level.

Change from One Degree Program to Different Program

Students may request a change of program at any time, but may not be enrolled in two master's degree programs concurrently. The request should be in writing to the Graduate School Office. The standing granted in the original program does not guarantee similar standing in the new program, which is entered subject to policies in effect at the time of the change.

Courses taken prior to the transfer may be utilized as part of the degree program if applicable. See "Transfer of Credit" policy for full details. All courses, including those taken in the earlier program and used in the new program, are calculated in the GPA considered for graduation. The time limitation policy for completion of program requirements begins with the earliest course taken in the former program that is applied to the new program.

It is possible to return to the first program if the return is requested in writing within 60 days of the original request to change programs. The student may return to the original program after the 60-day period, subject to admission policies in effect at the time of the application to return.

Re-Entry to a Degree Program after Lapse of Time Limitation

For re-admission to the same or another degree program after the time limitation policy for completion of the degree has elapsed, the student's records are evaluated and admission is granted under current Graduate School

policy. Previous course work will be reviewed by the program director. Up to 12 units of courses taken while previously admitted may be applied to the degree if they are still part of the program curriculum within the seven-year limit and are approved by the program director. Any courses not approved must be repeated or replaced with additional courses approved by the program director.

Transfer of Credit

A maximum of up to 50 percent of the units required for a certificate or degree program may be transfer credits, subject to approval by the program director. The seven-year limitation cannot be extended for transfer credits within a certificate or master's program, and the 10-year limitation cannot be extended for transfer credits within a terminal or doctoral degree program. Courses taken prior to admission must have been taken at an accredited college or university, must be applicable to a graduate degree at the offering institution, and cannot be utilized if part of an already conferred bachelor's, master's or terminal/doctoral degree, unless variance is specified by an approved and/or accredited program of study. Where such variance is permitted, terminal or doctoral degree candidates may transfer courses that have been conferred in a master's degree, at the discretion of the program director. Courses taken as part of a post-baccalaureate certificate (in progress or completed) can be used toward a master's or terminal/doctoral degree if approved by the program director. Transfer courses must have been completed with a grade of B or higher. Pass/Fail or S/U grading is not acceptable.

Tuition and Fees

NOTE: Notwithstanding any other provision of this or any other university publication, the university reserves the right to make changes in tuition, fees and other charges at any time such changes are deemed necessary by the university and the University System of Maryland Board of Regents. Consult the Web site <http://students.towson.edu> for most current fees.

Proposed rates for the 2008-2009 academic year are:

Application fee: (nonrefundable)

Online	\$45
Paper	\$50

Tuition

Undergraduate, per unit	
In-state	\$225
Out-of-state	\$611
Graduate, per unit	
In-state	\$309
Out-of-state	\$649

University fee per unit –

undergraduate (nonrefundable)	\$83
	(\$65 Summer)

University fee per unit –

graduate (nonrefundable)	\$83
	(\$65 Summer)

Technology fee

Up to 12 units	\$7/unit
12 units or more	\$75 flat

Graduate Student

Association (GSA) fee	\$2/unit
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Private music lessons: (per unit plus tuition)

Major instrument	\$100
Non-major instrument	\$260

*These rates are subject to change.

Fees

The following fees are nonrefundable:

1. Late payment fee
2. Graduate application fee
3. Closed contract fee
4. Physician Assistant Program Early Admit Deposit
5. Audiology, Speech Language Pathology and Deaf Studies Deposit

The following fees are nonrefundable after the official start of the classes for the term:

1. Applied fee (private instruction, student teaching, clinical practicum, etc.)
2. Parking permit fee

The following fees are nonrefundable after the official change of schedule period:

1. Mandatory university fees
2. Technology fee

Center for Applied Information Technology (AIT courses)

AIT rates differ from university rates. For details see the CAIT Web site, www.towson.edu/cait.

M.S. Accounting and Business Advisory Services (Joint Degree Program with University of Baltimore)

Students in the Accounting and Business Advisory Services Joint Degree Program will be assessed tuition and fees based on the University of Baltimore's graduate rates. For classes not part of this joint program, tuition and fees will be assessed according to Towson University's rates. To view the University of Baltimore's rate structure, go to www.ubalt.edu/business and click on the Tuition and Fees link.

UB/Towson MBA

Students in the UB/Towson MBA will be assessed tuition and fees based on the University of Baltimore's graduate rates. To view the rate structure, go to www.UBTowsonMBA.com

Late Registration Fee

A late registration fee may be assessed for courses added after the change of schedule period.

Refund Policy

Notification to the instructor does not constitute proper withdrawal.

Withdrawal Forms must be processed by the Registrar's Office. The date on which written notice of withdrawal is received determines the percentage of refund. If dropping all classes on the Web, the last course drop date will be your official withdrawal date on your academic record. Or, you may contact Registrar's Service Center, Enrollment Services 223. All refund percentages are based on the official start of the term. The timing for effecting refunds is as follows:

1. Through the end of each change of schedule period, 100 percent of tuition

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and fees is refunded to the student.

2. Beginning with the first day after the end of the change of schedule period through the 21st calendar day after the official start of the term, 50 percent of tuition only is refunded to the student who fully withdraws from the university.
3. Beginning with the 22nd calendar day after the official start of the term, no tuition and fees are refunded to the student.

NOTE: Based on documentation of extraordinary circumstances, including medical, exceptions may be made to this policy. Requests for refunds for extraordinary circumstances should be submitted immediately; however, no requests will be considered 30 days beyond the session in question.

Graduate students should contact the director of Graduate School Operations, 7800 York Road, Room 218, Towson, MD 21252.

Any unpaid charges on a student's financial account with the university will be subtracted from the refund due prior to processing the refund request. For payments made by credit card, refunds will be credited to the original credit card account and will be reflected on the credit card monthly statement. Credit card payments made for term charges are refunded using the following practice. For each term, credit card refunds will be processed after the term Drop/Add period. However, students may ask for a credit card refund prior to this period by contacting the Bursar's Office. Credit card owners are responsible for paying any and all interest charges accrued on the credit card. All questions regarding tuition and fees should be referred to the Office of the Bursar, Enrollment Services Center, 410-704-2100 or 1-888-5BURSAR.

Payment of Fees

All checks or money orders should be made payable to Towson University for the exact amount of the charges. The student's name and TU ID number, if known, should appear on all checks submitted to the university. The

student's liability is not discharged until his or her balance is satisfied in full. The student's balance can be satisfied through a cash, check or credit card payment, as well as financial aid, a payment plan agreement with AMS/TuitionPay or a combination of all options.

The AMS/TuitionPay payment plan extends the student a monthly budget plan for meeting education expenses for the academic year and individual regular terms. Students who choose to use this payment plan may arrange for a payment plan by contacting AMS/TuitionPay at 1-800-635-0120 or www.amsweb.com. The university accepts Discover, MasterCard and VISA credit cards. The university also offers online credit card payment at <http://students.towson.edu>. Full payment is required. It is imperative that students adhere to published payment deadlines. A \$75 late fee is assessed to any student who pays after published bill deadlines. Payment of term bill secures your class schedule for a term; otherwise, cancellation of your class schedule may occur. You may pay by either returning the remittance portion of your billing statement to the Bursar's Office, Enrollment Services 336 with payment or verification of funds to cover all charges or online at <http://students.towson.edu>.

To use: click Online Services; click SA Self-Service; click Learner Services; click Finances; click Make a Payment. Your TU username and password are required to make a payment on the Web. NOTE: Bank check card or debit card payments cannot be processed through the Web payment site. If the Web payment option is selected, full payment is required.

If your term bill reflects a credit or zero balance and you choose NOT to attend the upcoming term, you must notify Enrollment Services on or before the bill payment due date to have your class schedule canceled. If you fail to do this, you will be financially responsible for all term charges. If tuition, fees and related charges are not paid by the established payment date, the student's class schedule will be voided and, if applicable, residence hall space will be forfeited. If a check given in payment of fees, fines or services is returned unpaid by the bank for any reason, a penalty

fee of \$50 is charged. Failure to reimburse the university for an uncollectible check with certified monies may result in a student's class schedule being canceled.

WARNING: Processing of financial billing statements is the responsibility of the student and is due to the university each term as outlined at www.towson.edu/bursar. Nondelivery of the billing statement does not release you from the payment or late payment assessments.

Financial policy set by the Board of Regents and supported by the legislative auditors of the state of Maryland states that all previous balances must be paid prior to registration for the following academic term. The university employs a "first in/first out" technique when applying payments to accounts. Therefore, payments are used to satisfy the oldest outstanding charge prior to applying any portion of a payment to current or more recent charges. Should the account of any student become delinquent and sent to the Central Collection Unit of the state of Maryland, it is deemed delinquent, and a collection fee not to exceed 20 percent will be charged to the student by the Central Collection Unit. In accordance with COMAR Title 17, Subtitle 01, Chapter 02, Section 01 through 05, the Central Collection Unit may report debt to a credit bureau and begin intercepting Maryland income tax refunds of individuals indebted to the state colleges and universities for tuition, fees and other costs. Students with outstanding balances should contact the Office of the Bursar. Transcript and diploma requests will not be honored if a student has a financial obligation to the university. Payments made by check will be subjected to a waiting period of 10 to 30 working days prior to transcripts or diplomas being released or refunds being processed.

NOTE: The university will retroactively bill when coding errors are identified.

The Bursar's Office is open Monday–Friday. The Customer Service Center's business hours are 8:30 a.m.–4:30 p.m., and the Payment Center business hours are 8:30 a.m.–4 p.m. The Bursar's Office can be contacted at

410-704-2100, toll free at 1-888-5BURSAR or www.towson.edu/bursar.

FINANCIAL AID

Graduate students may receive loans, scholarships and work-study while attending the university. Funds for financial aid and scholarship programs come from the U.S. Department of Education, the state of Maryland and Towson University.

Scholarships generally use merit or academic achievement as the main criterion, without considering the financial need of the applicant. Some scholarships use academic major as a primary criterion.

Other programs help students pay the difference between the cost of education and the amount they can contribute:

Cost of Education
– Expected Family Contribution (EFC)
– Other Resources (state/private scholarships, etc.)
Need for Title IV funds

The cost of education includes direct costs like tuition and fees, as well as indirect costs such as personal and transportation expenses.

The U.S. Department of Education calculates the Expected Family Contribution (EFC) from the information that the student provides on the Free Application for Federal Student Aid (FAFSA). The EFC formula considers income, assets, family size and number of family members in college.

The Financial Aid Office is located in Enrollment Services 339; phone: 410-704-4236; fax: 410-704-2584; and www.towson.edu/finaid.

Student Eligibility

Factors that determine eligibility for Federal Title IV and university campus-based aid include:

- Financial need (except for unsubsidized loans)
- Degree candidacy or formal admission as

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a regular student making satisfactory academic progress toward a degree or certificate

- U.S. citizen or eligible non-citizen status
- Valid Social Security number
- Certification that the applicant is not in default on a student loan and does not owe a repayment of a Federal Title IV Grant
- Registration for the Selective Service

Deadlines and Application Procedures

All students must reapply for Federal Title IV and some Maryland State Scholarship programs annually, and should do so each year, as soon as possible after January 1. Students can apply for aid electronically at the U.S. Department of Education's Web site, www.fafsa.ed.gov, or they can request a paper FAFSA from the federal processor by calling 1-800-4FED-AID.

Students should complete the FAFSA by January 31 to allow time for the U.S. Department of Education to process their application by the Towson University priority deadline of March 1. All students must list Towson University (code #002099) in Step 6 of the FAFSA. This allows the federal processor to transmit the processed FAFSAs electronically to the Towson University Financial Aid Office.

The Financial Aid Office offers campus-based and direct federal aid first to students whose EFCs are received from the U.S. Department of Education by the March 1 deadline. TU applications received after the March 1 deadline are processed on a rolling basis; however late applicants should not expect consideration for limited campus-based funds.

Campus-Based Financial Aid

The Financial Aid Office receives a limited amount of money each year for the campus-based programs from the U.S. Department of Education. Only the earliest aid applicants who demonstrate the greatest need and meet all eligibility requirements (see Student Eligibility)

may receive aid from these need-based programs. The Financial Aid Office processes applications in the order of EFC, starting with the lowest EFC and continuing through the highest EFC. Students whose applications have the lowest EFCs may receive aid from the campus-based program requiring exceptional need.

Federal Perkins Loan

The university offers loans from this Federal Title IV program first to students who have exceptional financial need. Graduate students may receive up to \$6,000 per year. The aggregate limit is \$40,000, including all loans borrowed for undergraduate study.

This loan has an annual interest rate of 5 percent, making this the lowest cost educational loan. Interest does not begin to accrue, and no payment of principal is due, until nine months after the borrower leaves school or drops below enrollment for at least 6 units. Payments depend on the total amount borrowed, but will never be less than \$40 per month, plus interest.

Federal Work-Study

This Federal Title IV program allows students to work and earn money for educational expenses. The university pays aid from this program through paychecks every two weeks. The eligibility does not offset direct university charges such as tuition.

Students can find work opportunities on campus or in approved off-campus organizations and agencies. The university encourages students to consider off-campus jobs in community service organizations.

Towson University's Career Center maintains a list of available Federal Work-Study positions. Work-study students can find information on job openings at www.towson.edu/careercenter, at the Career Center location, or on the job boards on the lower level of the University Union.

Direct Federal Aid

Unlike the campus-based programs, the university has no limit on the total number of

eligible students who can receive aid from a direct aid program. However, federal regulations limit the amount any student can receive from a direct aid program.

Federal Direct Student Loan Program

The application requirements for these long-term loans are the same as for other Federal Title IV programs. Borrowers must carry at least 6 units per term.

Depending on the amount of need, an aid offer may include an interest-subsidized loan or an unsubsidized loan. Some students receive both subsidized and unsubsidized loans.

The chief difference between a subsidized loan and an unsubsidized loan is the point at which interest begins to accrue. No interest accrues on a subsidized loan until the end of a six-month grace period, which begins when the borrower graduates, withdraws, or drops below enrollment for at least 6 units. Interest on an unsubsidized loan accrues during enrollment, and throughout the grace period. The interest rate for Direct Loans is variable, and capped at 8.25 percent.

All borrowers pay interest while in repayment. The repayment period begins at the end of the grace period.

All borrowers pay a loan origination fee of 3 percent, which is deducted from the loan proceeds. The U.S. Department of Education may offer an up-front interest rebate of up to 1.5 percent of the loan amount borrowed. (To keep the up-front interest rebate, borrowers must make their first 12 required monthly payments on time.)

Direct Loans have the following annual limits for graduate students: \$8,500 in subsidized loan, and \$10,500 in unsubsidized loan.

The aggregate loan limit is \$138,500, of which no more than \$65,500 may be subsidized. This limit includes all loans made for undergraduate study.

Loan Counseling Requirements

New Federal Perkins Loan or Federal Direct student borrowers at Towson University must complete entrance loan counseling.

Borrowers who graduate or leave school must complete exit loan counseling sessions. These sessions provide borrowers with information on their rights and responsibilities.

New borrowers will find entrance and exit loan counseling for Direct Loans, as well as entrance counseling for the Federal Perkins Loan Program at www.towson.edu/finaid. The university's Office of Financial Services provides exit loan counseling for Perkins Loan borrowers.

Financial Aid Disbursements

Generally, students receive one half of academic year financial aid funds each term. The university will credit aid (except Federal Work-Study) toward term charges for tuition and fees and other direct university charges.

Students should take the following steps to ensure that funds are available in time to pay term charges:

- Meet the March 1 financial aid application deadline.
- Complete the admissions requirements early.
- Register for classes at the earliest opportunity.

Whenever the amount of term aid exceeds a student's charges to the university, the student has a credit balance and will receive a rebate check to use for books and day-to-day indirect educational expenses.

The Bursar's Office can disburse rebate checks as early as 10 days before the start of the term. A student can request the Bursar's Office to convert a portion of the credit balance for retail points on the student's Towson University OneCard for the purchase of books, or for use at any campus food location.

A student who receives a late aid offer may not receive a check until at least three weeks after the creation of the credit balance. A student with a revised aid offer may also experience a delay in receiving a rebate check.

Financial Aid for Minimester

Students cannot receive Federal Title IV financial aid for Minimester.

Financial Aid for Summer Sessions

A supplemental application is required for summer aid and is available from the Financial Aid Office at the time course schedules become available. Summer aid is usually limited to loans from the Federal Direct Loan Program.

Financial Aid Advising

Students can schedule appointments to speak with Towson University financial aid advisers in person or by telephone. To schedule an appointment, call 410-704-4236.

Refund Policy

When a student completely withdraws from Towson University while receiving Federal Title IV student aid, the Financial Aid Office must determine what portion of the student's term aid (not including Federal Work-Study funds) will revert to the federal programs. The Financial Aid Office uses a statutory federal refund formula required by the U.S. Department of Education to determine what portion of aid paid to university charges has been "earned" and what portion must be considered "unearned."

The percentage of assistance earned is equal to the percentage of the term completed as of the day the student withdraws. (If the withdrawal occurs after the 60 percent point, the percentage of aid earned is 100 percent.) The amount of aid not earned by the student is calculated by determining the complement of the percentage of assistance the student earned. That percentage is then applied to the total amount of federal aid assistance disbursed for the term.

If the student has received more assistance than the amount earned, the university or the student (or both) must return the unearned funds to the Federal Title IV programs.

Towson University returns the lesser of the unearned amount of Title IV assistance; or the institutional charges incurred for the term, multiplied by the unearned percentage of Title IV grant and loan assistance. (Institutional charges are limited to tuition, fees, and room and board, if the student paid these charges to the university.)

The student returns unearned Title IV assistance minus the amount the university returns. The U.S. Department of Education does not allow discretion on the part of the university for non-institutional costs. In most cases, when a student receives Title IV assistance greater than the amount of institutional charges and completely withdraws from the university, the student will have to return some of those federal funds.

SCHOLARSHIPS

State Scholarships and Grants

The state of Maryland offers scholarships and grants based on financial need, academic major, merit or a combination of these factors. Legal residents of Maryland apply using the FAFSA or the Renewal FAFSA. The deadline is March 1.

Some state programs, such as teaching scholarships, require separate applications and have different deadlines. For more information about all state scholarships and grants, students can visit the Maryland Higher Education Commission's online at www.mhec.state.md.us.

Private Scholarships

Various businesses, foundations and civic organizations offer scholarships. Students should check directly with groups in their local communities. Another source for private scholarship information is www.fastWEB.com.

Students who receive scholarships from private organizations outside the university (not including Maryland state scholarships) should contact the Bursar's Office to arrange for payment of scholarship funds. Scholarship proceeds are disbursed in accordance with procedures and policies set by the private scholarship donors and Towson University. Students may defer partial payment of university charges before receiving scholarship proceeds by forwarding a copy of the scholarship award letter to the Bursar's Office. Any outstanding balance created when a student or donor fails to provide the university with

adequate, timely information will become a financial obligation of the student.

Scholarship Seeker

Towson University offers a limited number of need and non-need-based scholarships and grants to graduate students. The Scholarship Seeker allows students to search for TU and state of Maryland scholarships and grants to fit their individual qualifications. Students can view lists of potential scholarships and detailed information about scholarship requirements and application procedures. The Scholarship Seeker is part of the Financial Aid Office Web site at www.towson.edu/finaid.

Scholarship Over-Award Policy

Towson University will not award or disburse a combined total of federal, state, institutional and/or private scholarships that exceeds a student's cost of education unless all of the funding comes from a private external source. The cost of education is a standardized budget including tuition, fees, room, board and allowances for indirect costs such as transportation and personal expenses. Whenever a student's total aid package exceeds the cost of education, the Financial Aid Office will adjust or reduce aid offered by the university.

OTHER FINANCIAL RESOURCES

Student Employment

Various departments on campus hire students. Students will find information on current openings at www.towson.edu/careercenter and on job boards located on the second floor of the University Union.

The Career Center also helps students find part-time, off-campus jobs in the Baltimore metropolitan area. For additional information, call 410-704-2730 or visit the Career Center.

Veterans Benefits

The Veterans Office is located in Enrollment Services 233. The phone number is 410-704-3094. The Veterans Office provides coordination between veteran/dependent students and

the regional office of the Department of Veterans Affairs. The coordinator establishes procedures and prepares forms and correspondence for eligible students to receive educational benefits. Additionally, the officer monitors class attendance and evaluates academic progress to ensure that those receiving benefits maintain satisfactory progress. This officer also supervises the employment of VA work-study students.

Students taking courses at other institutions concurrently with courses at Towson University may be certified for both institutions by the TU coordinator.

Students may visit the office daily from 8:30 a.m.– 4 p.m. but may wish to call for an appointment. The normal time for the Regional Office of the Veterans Administration to process an enrollment certification is six weeks. Certification is not automatic. The proper VA forms must be completed each term.

NOTE: Students cannot be certified for courses until they register.

Withdrawals

When students decrease unit load during the course of the term, they must notify the TU Veterans Office. Failure to do so could result in termination of benefits and a financial debt to the U.S. Department of Veterans Affairs.

FX Grades

Students who receive an FX at the end of a term should contact the university of fice immediately.

Change of Program

Veterans may change their academic program once without VA approval. For more than one change of program, however, veterans are required to undergo counseling by the VA. A change of program with the VA is required whenever veterans make a curriculum change in which any of the courses for which VA benefits were previously received do not transfer into the new program or whenever students declare a new major or matriculate at a different institution.

Independent Study

Payment for independent study courses will generally be made on a tuition and fees basis only. Monthly rates may be paid for such courses, provided that more than half of the total number of units for that term are in courses requiring class attendance. Check with the office to determine eligibility to pay for independent study courses.

Advance Payment

Advance payment is the allowance for the first two months of an enrollment period. All tuition and fees are due according to regular university deadlines and cannot be deferred pending receipt of advance payment. Students may apply for advance pay only if they will be enrolling at the university on at least a half-time basis and meet established deadlines. There must be one full calendar month break between terms to apply for the advance to qualify for advance payment.

Students may request advance pay for the regular academic terms in writing on the Declaration of Intent Form. The student must be registered one month before the term commences to qualify for advance payment.

Approved Program

The VA will pay veterans only for the courses listed in this catalog that are required for a degree and for programs that have been approved for study by the VA. If students take courses in addition to those listed for their approved program, they will not be entitled to receive VA benefits for them.

Alternative Loans

Students may borrow alternative loans from private lenders outside the university. These non-federal loans can supplement other sources of student financial aid. Students and parents can find links to alternative loan lenders at www.towson.edu/finaid.

Assistantships

The College of Graduate Studies and Research and various departments of the university offer a limited number of graduate, teaching

and research assistantships each year to qualified degree-seeking students.

Assistantships provide academic and professional enrichment to graduate students. They also offer stipends to compensate for the hours worked and also tuition waivers for graduate units required for the degree. The amount of the stipend and tuition waiver varies depending on the type and nature of the assistantship. There are 10- and 20-hour positions available in academic and several administrative departments and are highly competitive.

Applications are accepted year-round from individuals who have already been accepted into their program of study. However, it is encouraged that applicants submit the applications and resumes to the Graduate Assistantship Office (GAO) by early spring so that departments may have time to review the information in time for the upcoming academic year.

Interested applicants may contact the Graduate Assistantship Office for more information at 410-704-4484, gao@towson.edu or <http://grad.towson.edu/finance/ga/index.asp>.

Fellowships

The College of Graduate Studies and Research is committed to supporting students enrolled in doctoral and other terminal degree programs at Towson University. The purpose of the Towson University Graduate Student Fellowship program is to advance the goals of increased excellence and diversity of graduate students. Awards are made to students on the basis of academic merit and/or depth of professional experience. Detailed information may be obtained by calling the Graduate Dean Office, 410-704-2077, or by e-mailing lshirley@towson.edu.

Alumni Association Graduate Fellowship Awards

The Alumni Association awards several scholarships each year to TU students who are full or part-time graduate or post-graduate students and are active leaders in their communities. The Alumni Association recognizes and

rewards students who demonstrate the highest levels of intellectual achievement and the potential to be active supporters of the university and the larger community. Each award shall consist of a certificate and a \$1,000 to \$2,000 scholarship that will be deposited directly into the student's university account for tuition, books and/or living expenses. Applications may be obtained from the Towson University Office of Alumni Relations, 1-800-887-8152, or alumni@towson.edu, and must be postmarked no later than June 15.

GRADUATION REQUIREMENTS

Eligibility for Graduation

- An application for graduation must be filed by the published date. (See Academic Calendar, or Application for Graduation)
- Students must successfully pass all program prerequisites, as well as all required and elective degree courses with a minimum average of 3.00 in all courses included in the program of study.
- Students must also pass the master's degree written examination, internship or practicum experiences, if required by the particular program, and any additional oral or written examinations.
- A maximum of two courses of C grades is allowed in a program of study for graduation.
- A maximum of three 500-level courses may be counted toward a master's degree.
- Any transfer courses counting toward a degree must be transferred to TU by the last day of classes of the term in which the student intends to graduate.
- All degree requirements including resolution of incomplete grades and the submission of final copy of thesis must be completed by the last day of classes of the term in which the student intends to graduate.

Application for Graduation

The request for graduation review ("graduation application") for a degree or certificate is submitted by the student to the Graduate School by the published deadline. Instructions on how to apply for graduation—as well as general graduation application information—can be found at the following webpage:

<http://grad.towson.edu/graduation/apply.asp>

Graduation applications received after the deadline will be handled on a case-by-case basis by the graduate school. If the student does not complete requirements for graduation, a new application must be submitted during the term in which graduation is intended. *A student must be accepted into a degree or certificate program PRIOR to applying for graduation.*

Thesis Procedure

Students intending to write a thesis should obtain the manual *Guidelines for Preparing the Master's Degree Thesis* from their program director or <http://grad.towson.edu/academic/thesis/index.asp>. In most master's degree programs, students can do their thesis work in one 6-unit 897 Thesis course or divide their work into two 3-unit 898 courses, normally taken in two consecutive terms. Students need special permits from the program director to register for 897 or 898. Doctoral dissertation/thesis work uses the same *Guidelines*, plus additional policies within the doctoral program. Normally, the dissertation courses are 997 and 998.

Thesis/Project Continuum Registration

If a student does not complete the thesis during the regular thesis course registration, he/she must register for Thesis Continuum (899 or 999) every term until the work is finished, submitted and approved. If a student does not complete the project work during the regular project course registration, he/she must register for Project Continuum (885) the following term to complete the work. Normally, students will only be allowed one term of Project Continuum.

If a student misses a term and returns, it will be necessary to register for thesis/project units after the fact for the missed term(s). Any exceptions will be handled on a case-by-case basis by the program director and the dean of the College of Graduate Studies and Research.

Time Limitation for Completion of Degree, Certificate Requirements

All requirements for a certificate or master's degree must be completed within a seven-year period. All requirements for terminal or doctoral degrees must be completed within a 10-year period. The seven-and ten-year time clock begins with the earliest course applied toward the degree program. Post-baccalaureate certificates must be conferred prior to or at the same time as any corresponding degree that shares the same course work, but not after.

Courses Taken as a Non-Degree Student

A limit of 12 units taken by non-degree students who later apply for degree status may be used in the program.

Special Format Courses

In all degree programs, a limit of 12 units is placed on workshops, independent study, travel and study, directed reading or other special format courses.

Golden ID Program: Senior Citizens

Retired Maryland residents 60 years of age or older are eligible for the Golden ID senior citizen tuition waiver program. Golden ID students may enroll in most graduate courses for a maximum of two courses for the spring, summer and fall terms, and pay only the necessary fees. Golden ID students may take courses for audit or credit on a space-available basis (special format courses excluded). To apply for the Golden ID card, please call 410-704-2113 or stop by the Office of Admissions in Enrollment Services 208.

OTHER ACADEMIC POLICIES

Towson University Policies

Privacy Rights of Parents and Students

Towson University is in compliance with Section 513 (protection of the rights and privacy of parents and students) and Section 514 (protection of pupil rights) of Title V Education Administration of the Education Amendments of 1974. University policies on this issue are spelled out in detail in Appendix B.

Nondiscrimination in Education and Employment

Towson University is in compliance with federal and state regulations regarding nondiscrimination on the basis of race, color, national origin, religion, sex, sexual orientation, age, disability or other prohibited reason. For further information, contact the TU Office of Diversity and Equal Opportunity, 410-704-2361, www.towson.edu/aa.

Maintenance and Disposition of Records

Students who do not register within one year of admission must submit a new application and appropriate admission credentials if they wish to take courses.

All student records, including academic records from other institutions, are part of the official file and are retained subject to stated policies. They cannot be returned or duplicated for any purpose. Students should obtain their own copies of official credentials for advisory purposes and other personal uses.

Confidentiality of Records

In keeping with the Family Educational Rights and Privacy Act of 1974, Towson University respects the confidential relationship between the university and its students by preserving, to the maximum extent possible, the privacy of all records relating to its students. Records are kept only on matters relevant to the academic admission process and to the student's progress toward a degree. The records will not be disclosed except upon student's written request or with his or her written consent,

under legal compulsion, or in carefully circumscribed instances based on clearly defined policies of the university (see Appendix B).

Substance Abuse Policy

Each student is expected to read and abide by the policies and regulations of Towson University concerning drug and alcohol abuse. The substance abuse policy is found in Appendix D.

Graduate School Policies

Student Responsibility

It is the responsibility of the student to become knowledgeable of and to observe all university policies, regulations and procedures. In no case will a waiver of requirements or an exception be granted because a student pleads ignorance of policy or regulation or asserts that he/she was not informed of a specific requirement by an adviser or other university authority. The student should become especially familiar with: 1) the regulations in this catalog, 2) the section presenting requirements for the degree sought, and 3) the offerings and requirements of the student's major department.

Policy for graduate study, as stated in this catalog, is in effect for all students admitted to a program for the 2008-2009 academic year, and is that under which the student operates through the term of his or her study toward completion of degree requirements (subject to the disclaimer in the next paragraph).

While the provisions of this catalog will ordinarily be applied as stated, the catalog and the information contained herein do not constitute a contract. Towson University reserves the right to change any provision listed in this catalog, including, but not limited to, academic requirements for graduation, without actual notice to individual students. Every effort will be made to keep students advised of any such changes. Information on changes will be available from advisers and in the dean's office. It is especially important to note that it is the individual student's responsibility to keep apprised of current graduation requirements for his/her particular degree program.

Academic Integrity

Students are expected to maintain a high standard of academic integrity. Inappropriate classroom conduct, cheating and plagiarism may result in disciplinary action by the Graduate Studies Committee.

Instructors are responsible for maintaining the academic integrity of courses and will initially handle problems of classroom conduct, cheating and plagiarism in a discussion with the student. Unauthorized assistance in preparing materials submitted as original work by the student constitutes a violation of academic integrity and results in action being taken. The instructor may lower the student's grade or give a failing grade for the course. If the instructor decides that further action is warranted, he or she will notify the student that a formal charge will be made to the Graduate Studies Committee. A written report of the incident will be filed with the committee.

The committee will review the facts of the case and make a decision regarding the status of the student. The committee will either absolve the student of the violation or impose a penalty. The penalty may be, but is not limited to, the following: 1) agreement that the lowered course grade is sufficient disciplinary action; 2) mandatory suspension from taking courses for graduate credit for a designated period of time; or 3) dismissal from the Graduate School.

Academic Standards, Appeals, Hearings and Grievances

Matters of graduate academic standards are the responsibility of the Graduate Studies Committee. Appeals related to academic matters should be made to this committee by writing in care of the Graduate School dean.

Graduate School policy on procedures for appeals, hearings and grievances is found in Appendix E of this catalog.

In all cases involving disciplinary action, or other charges, procedures of due process are followed. Additional information may be found under the headings of "Graduate Studies Committee" and "Academic Integrity."

Exceptions to Academic Policies, Regulations or Requirements

Exceptions to academic policies, regulations or requirements, as stated in this catalog or elsewhere, are rarely made, and then only for truly extenuating circumstances. A student who believes an exception is justified may petition the Graduate School. The request must state the specific exception being requested and the reasons for the request. For degree students,

the program director must countersign the request, indicating his or her recommendation. In cases that involve faculty in addition to the program director, the coordinator forwards the request to the appropriate faculty member(s) for additional written recommendation. The signed request is then forwarded by the program director to the Graduate School. Non-degree students must petition the Graduate School directly.



Degree and Certificate Programs

THE COLLEGE OF BUSINESS AND ECONOMICS

VISION

CBE's vision is to be widely recognized as a distinctive college of applied business studies.

MISSION

CBE's mission is to provide:

- a strong undergraduate business education for high-achieving students; selected graduate programs based upon specific CBE strengths and needs
- a good balance of theory, application and personal development activities that create a challenging environment of integrated learning
- each student with the opportunity to meet the required "Profile of a CBE Graduate" through strong faculty members who consistently demonstrate quality teaching, advising and important scholarly contributions in their fields of expertise
- a nurturing culture of high expectations that properly prepares each student for life beyond college
- a strong outreach program to create dynamic partnerships beyond the university for economic and societal development, academic linkages that enhance the teaching/learning environment throughout our college, and CBE's important inclusion in the fabric of the community

COLLEGE OFFICE

Stephens Hall 218

410-704-3342

Fax: 410-704-3664

www.towson.edu/cbe

Master's Degree Programs

Accounting and Business Advisory Services

UB/Towson MBA

Certificate Programs

Leadership

Shohreh Kaynama, Dean

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ACCOUNTING AND BUSINESS
ADVISORY SERVICES

Degree: Master of Science
Program Director: Martin Freedman
410-704-4143
mfreedman@towson.edu

The Master of Science in Accounting and Business Advisory Services at Towson University is a joint program with the University of Baltimore. This program is designed to meet two important educational objectives. First, when combined with a bachelor's degree in accounting, the program allows students to earn the additional units necessary to meet the 150-hour requirement to sit for the Uniform Certified Public Accountant (CPA) exam in Maryland and many other states. The revised CPA exam (as of November 2003) includes a section called Business Environment and Concepts which is composed of questions related to finance (22%–28%) and information technology (17%–23%), as well as other topics currently covered by an undergraduate accounting degree. Students planning to take the revised CPA exam will be best served by a program of study that emphasizes the same subject matter as the exam. Second, by incorporating courses in the related disciplines of financial management and information technology, the program complements the technical skills acquired in an undergraduate accounting education. Graduates of the M.S. in Accounting and Business Advisory Services program will have the flexibility needed to accelerate their public accounting careers or pursue careers in other areas such as management accounting, internal auditing, accounting for governmental or other nonprofit entities and management consulting.

NOTE: Since this program is jointly operated with the University of Baltimore, the tuition, fees and grading system for students are the same as the University of Baltimore. Contact the Bursar's Office for more information.

Admission Requirements

The minimum requirements for admission to the joint graduate program in Accounting and Business Advisory Services at Towson University and the University of Baltimore are a baccalaureate degree from an accredited college or university and a 3.00 minimum undergraduate GPA. (Students not meeting the GPA standard will be considered on an individual basis for a conditional admittance.) Admission to the program will be based on undergraduate academic performance and scores on the Graduate Management Admission Test (GMAT) or the Graduate Record Examination (GRE). Both schools will use the same admission standards.

Prerequisite Courses

The following list of undergraduate accounting and non-accounting classes are required to be completed before enrolling in graduate courses required as part of the M.S. in Accounting and Business Advisory Services program.

Accounting Courses

ACCT 201/202	Principles of Accounting (6)
ACCT 300	Accounting Information Systems (3)
ACCT 301/302/303	Intermediate Accounting (6-9)
ACCT 341	Cost Accounting (3)
ACCT 361	Tax Accounting I (3)
ACCT 401	Auditing I (3)

Non-Accounting Courses

COMM 131	Oral Communications (3)
ECON 201/202	Principles of Economics (6)
ECON 205	Statistics for Business and Economics I (3)
or	
MATH 231	Statistics (3)
FIN 331	Principles of Finance (3)
LEGL 226	U.S. Business Law (3)
MKTG 341	Principles of Marketing (3)
MNGT 361	Principles of Management (3)
MNGT 482	Business Ethics and Society (3)

or
PHIL 371 Business Ethics (3)

Degree Requirements

Completion of a minimum of 30 units beyond the undergraduate degree of which a minimum of 18 units should be in 600-level courses or above designed primarily for graduate students. (This is an AACSB requirement.) Students may take courses at either institution, but must take a minimum of 12 units sponsored by each institution out of the total 30-unit program.

Required Courses

Accounting (12 units)*

ACCT 630 Contemporary Issues in Financial Reporting (3)
ACCT 720 Design of Managerial Cost Control Systems (3)
ACCT 740 Advanced Topics in Assurance Services (3)
ACCT 752 Advanced Topics in Accounting Systems (3)

Financial Management (6 units)*

FIN 640 Intermediate Financial Management (3)
FIN 715 Investment Analysis (3)

Information Technology (6 units)

Applied Information Technology**

AIT 610 Systems Development Process (3)
AIT 632 Database Management Systems (3)

or

Management Information Systems***

INSS 651 Database Management Systems (3)
INSS 671 Systems Analysis Design (3)

Electives (6 units)

Accounting*

ACCT 655 Tax Policy (3)
ACCT 680 Taxation of Entities (3)
ACCT 695 Individual Research (3)

ACCT 770 Seminar in Current Topics in Accounting (3)

Finance***

FIN 720 International Financial Management (3)
FIN 745 Derivative Instruments (3)
FIN 750 Real Estate Investment (3)
FIN 780 Corporate Restructuring (3)
FIN 797 Special Topics in Financial Management (3)

Information Technology**

AIT 600 Information Technology Infrastructure (3)
AIT 612 Information Systems Vulnerability and Risk Analysis (3)
AIT 614 Network Security (3)

Management Information Systems***

INSS 641 Information Resource Management (3)
INSS 650 Telecommunications (3)
INSS 765 Global Electronic Commerce (3)

Other graduate courses in areas such as applied information technology, economics, management, marketing, etc. may also be chosen after consultation with the graduate director depending on the student's career goals and professional needs.

* Courses offered at Towson University and University of Baltimore

** Courses offered at Towson University only

*** Courses offered at University of Baltimore only

CPA Examination

A student must have also completed the specific courses required to sit for the Certified Public Accountant examination in Maryland, which would normally be done during the student's undergraduate studies (see Prerequisite Course section). A student who has not completed these courses prior to admission to the M.S. in Accounting and Business Advisory

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Services program will develop a plan to satisfy these requirements in consultation with the graduate director. This can be expected to add to the total number of units needed to earn the degree.

UB/TOWSON MASTER OF BUSINESS ADMINISTRATION

Degree: Master of Business Administration (MBA)

Program Director: Ron Desi

rdesi@towson.ubalt.edu

MBA@towson.ubalt.edu

UBTowsonMBA.com

The University of Baltimore and Towson University have joined forces to partner for your success. The UB/Towson MBA will encourage your intellectual exploration, help you apply theory to practice, and give you the skills and resources necessary to guide you toward your professional goals. When you graduate, you will join a dynamic alumni community of business leaders from two vibrant and distinguished business schools; the University of Baltimore and Towson University.

The hallmark of the UB/Towson MBA is its flexibility in delivering high-quality educational experiences. The mission of the program is simple: to make excellence accessible. The UB/Towson MBA is delivered on your time. Our accomplished faculty understands that you have work, family and other commitments beyond the classroom. They respect these realities while never compromising quality.

You can work with our advisers to create the best schedule for your needs. Graduate business courses are offered year round, through evening, Saturday and online classes. The UB/Towson MBA offers 11 areas of specialization and four dual-degree programs.

NOTE: This program is jointly operated with the University of Baltimore. The tuition, fees and grading system for students are the same as at the University of Baltimore.

MBA Learning Goals

In today's dynamic marketplace, successful managers must be innovative and entrepreneurial, combining a general knowledge of business functions with specific skills in their areas of responsibility. The UB/Towson MBA program provides students with expertise and proficiency in the following areas.

Functional tools and concepts

Our graduates use major concepts and functional tools from various disciplines, including accounting, finance, economics, management, marketing and management information systems.

Leadership

Our graduates demonstrate the ability to articulate insightful visions in an ethical manner, and to involve and engage others in cultivating and advancing action toward those views.

Teamwork

Our graduates demonstrate the capability to form and function in emergent teams that value and respect clear purpose and roles, diversity, shared leadership, a commitment to common principles, dialogue and open communication, consensus decisions, and active participation.

Ethics

Our graduates demonstrate a commitment to morality, integrity, authenticity and developing their own emotional intelligence and wisdom. They understand the difference between legality and morality and act in ways that satisfy both.

Communication

Our graduates demonstrate the ability to express clear thinking in written, oral and nonverbal communication, engage human ingenuity in an organization, encourage dialogue and listening, and cultivate fresh opportunities.

Environmental awareness

Our graduates demonstrate an understanding of domestic, international, technological and economic business environment and trends, and the knowledge necessary to appraise regulatory and ethical considerations in domestic, global and diversity issues.

Problem solving

Our graduates identify and articulate problems and apply analytical, creative, synthesizing and evaluative skills and technology in dealing with those problems. They recognize their current paradigms and beliefs to ensure that they do not impair problem solving.

Academic Policies and Procedures

Certain academic policies and procedures of the UB/Towson MBA program may differ from those of the graduate programs at both the University of Baltimore and Towson University. Refer to the UB/Towson MBA Web site at www.UBTowsonMBA.com for those policies and procedures.

Application Requirements

Apply online at UBTowsonMBA.com. You are encouraged to apply early. Applications are reviewed on a rolling basis. Admission is offered fall, spring and summer. Please send required admission materials to:

The UB/Towson MBA Program
Office of Admissions
1420 N. Charles St.
Baltimore, MD 21201

- **Application:** Complete your application online at www.UBTowsonMBA.com. Questions about the application should be directed to the Office of Admissions, 410-837-6565.
- **Personal Statement:** Detail your reasons for seeking an MBA, your short-and long-term professional and personal goals, and how you think the UB/Towson MBA program will help you achieve them. Provide any additional information highlighting unique aspects of your candidacy to the Admissions

Committee. Please limit statement to 1,000 words.

- **Transcripts:** Submit one official transcript from all institutions attended.
- **Letters of Recommendation:** Provide two letters of recommendation addressing your abilities to successfully complete a graduate business program, and indicating what contributions you can make to the UB/Towson MBA program.
- **GMAT:** Send official copies of your Graduate Management Admissions Test (GMAT) score. When requesting GMAT scores, please use UB's program C.E.E.B. code DDP-XC-03. Visit the official GMAT Web site (<http://www.mba.com>) for more information.
- **Graduate Management Admissions Test (GMAT) Waiver:** In order to qualify for GMAT waiver consideration a student must have an advanced degree, or the combination of an undergraduate GPA of 3.25 or higher and five years or more of significant managerial experience. A personal interview with a UB/Towson MBA program adviser and a letter from a supervisor may be required.
- **Resume:** Provide a current resume or list detailing employment history (including dates, titles, organizational responsibilities, professional memberships and voluntary memberships).
- **International Documents:** Submit supplemental documents if you are an international students needing a VISA. In addition, if you earned your degree(s) at a non-U.S. university, you should arrange for a course-by-course evaluation report by a U.S. credential evaluation service of your foreign transcripts. If you are a nonnative English speaker who did not earn a degree at a U.S. university, you are required to submit a copy of your Test of Language as a Foreign Language (TOEFL) score report. For additional information, visit the International Services Office page at www.ubalt.edu/international.

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Admission Criteria

Admission to the UB/Towson MBA program is competitive. The MBA Admissions Committee considers variables such as the applicant's undergraduate GPA, the difficulty of the applicant's undergraduate program, the total score and percentile ranking on the GMAT, community service and work experience. An applicant eligible for consideration is not guaranteed an offer of admission.

Post-Graduate Students

A student who has already earned an MBA or other business-related master's degree or doctorate may be accepted for course enrollment. The student must arrange for an official transcript, showing the award of the graduate degree, to be forwarded by his/her previous university to the Office of Admissions.

Second Master's Degree

A student who has already obtained one master's degree may pursue another advanced degree in the school, provided that:

1. A second MBA degree will not be obtained.
2. The degree sought is not in the same functional discipline.

After meeting the core requirements, a minimum of 21 new units are earned for the second degree. No more than 9 credits may be transferred from the first degree to the second degree.

Waiver Policy and Transfer Options

The following qualifications govern the waiver of fundamental/prerequisite courses and the transfer of required (integrated core) and elective courses:

1. The business fundamental courses are waived if an applicant earned a bachelor's degree in business from an AACSB-International accredited school within the last five years, graduated with a cumulative GPA of 3.00 or higher, and earned a "C" or better in each of the undergraduate course equivalents. If the applicant graduated with a bachelor's degree in accounting from an AACSB-

International accredited institution, the applicant will also be required to include any missing courses as part of the MBA fundamentals.

If the applicant did not attend an AACSB-International accredited school or has lower than a 3.00 cumulative GPA, an MBA adviser will evaluate each undergraduate course equivalent and waive those courses where a "B" or better was earned. Courses being considered for waivers must have been taken within the past 10 years and the student must have graduated within the past five years.

2. No remedial courses are considered.
3. Advanced placement courses will be given consideration.

The following qualifications govern the transfer of program requirements:

1. Any graduate courses considered for transfer must have grades of "B" or higher.
2. Courses must have been completed in a degree that is less than five years old, or as an individual course within the past five years.
3. A maximum of 6 graduate credits may be transferred from previous study at another AACSB International-accredited university to satisfy credits beyond the fundamental courses.
4. Appropriate faculty must approve course content.

Visiting Students

A student who has matriculated into a graduate or professional studies program at another regionally recognized university and who is in good standing may be accepted for course enrollment on a space-available basis. Visitors from other universities must file an application as a visiting student. A letter of introduction from his/her program director, citing the foregoing conditions, is required in lieu of meeting other GMAT or transcript requirements. This letter should state which courses are being approved by the student's home institution.

Graduation Requirements

All candidates for graduation must meet the specific requirements for their programs of study, comply with the academic policies of the UB/Towson MBA, and file for graduation no later than the beginning of their last term (date specified in the course schedule). Students must apply for graduation through the University of Baltimore Records Office.

Academic Policy on Satisfactory and Unsatisfactory Progress

Please note that the following policies are for determining satisfactory academic progress. Students are advised to review any pertinent financial aid requirements to determine the standards for satisfactory progress for eligibility for receiving or continuing to receive financial assistance.

To be approved for graduation, a graduate student must have a cumulative GPA of 3.00 and be in good academic standing. A student is making satisfactory progress toward completion of a program as long as a GPA of 3.00 is maintained.

- A. Students will be placed on academic probation under either of the two following conditions:
 - a. The student attempts 6 or more units and earns a GPA less than 3.00.
 - b. The student receives two grades of C+ or lower. Notification of this action will be from the MBA program director's office. Probationary status is a warning that satisfactory progress is in jeopardy.
- B. A student who is placed on probation must obtain advisement from the MBA program director's office before attending classes the following term or summer session, even if the student has already registered. At the discretion of the MBA program director, a student on probation may take up to 6 units. Students on probation may not take more than 3 units at any given time during the summer.
- C. A student who has been placed on probation because of a deficient GPA will be allowed up to 6 units to clear probation.

- D. MBA students on academic probation may not hold offices in student organizations.
- E. Students will be placed on suspension under either of the two following conditions:
 - a. The student on academic probation does not reach a GPA of 3.00 or higher after completion of the 6 units allowed to clear probation.
 - b. The student receives three grades of C+ or lower.
- F. The period of suspension is one term. During this period of suspension a student may not register for any course at the University of Baltimore or Towson University that may be applied to the MBA program (including prerequisite requirements), nor will any course taken at another institution be applied to the MBA degree. With prior written approval of the MBA program director's office, a suspended student may take remedial work. The credit for such remedial work will not be applied to the MBA degree. While taking such courses at the University of Baltimore or Towson University, the student must register as a non-degree seeking special student.
- G. Reinstatement into the UB/Towson MBA program is not automatic; the student must request reinstatement. A letter requesting readmission must be submitted to the MBA program director by Oct. 15 for the spring term, by April 15 for the fall term or by March 15 for the summer session.
- H. A student returning from academic suspension must receive advisement and be cleared by the MBA program director before registering.
- I. If the student is suspended for academic or other deficiencies, the student must meet the admission requirements of the catalog in effect upon return if the student is admitted as a degree candidate.
- J. A student suspended for a deficient GPA, if readmitted, must achieve a grade of "B" or higher in each course taken for the first six units after re-entering. Failure

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to Integrated Core Courses (24 units) do so will result in immediate dismissal.

Graduate Assistantships

Graduate assistantships may be available in the College of Business and Economics. Additional information may be found in the Financial Assistance section of this catalog.

Undergraduate Course Equivalents

MBA Fundamental Courses

ACCT 504	Introduction to Accounting (3)
ECON 504	Economics (3)
FIN 504	Financial Management (3)
MGMT 506	Operations and Supply Chain Management (3)
MKTG 504	Marketing Management (3)
OPRE 504	Data Analysis and Decisions (3)

Undergraduate Course Equivalents

Principles of Accounting I and II
(3 credits each)

Principles of Economics or
Microeconomics and
Macroeconomics (3 credits each)

Financial Management *
Production Management *
Marketing Management *
Business Statistics

*Community college courses are not acceptable for fundamental course waivers.

Degree Requirements/Required Courses

The MBA program requires completion of fundamental courses (18 units), the integrated core (24 units) and electives (12 units), as below:

Fundamental Courses (18 units)

ACCT 504	Introduction to Accounting (3)
ECON 504	Economics (3)
FIN 504	Financial Management (3)
MGMT 506	Operations and Supply Chain Management (3)
MKTG 504	Marketing Management (3)

OPRE 504 Data Analysis and Decisions (3)

Integrated Core Courses (24 units)

MGMT 600	Leading and Managing People (3)
ACCT 640	Accounting for Managerial Decisions (3)
ECON 640	Economics of Public Policy and Corporate Social Responsibility (3)
FIN 640	Financial Analysis and Strategy (3)
INSS 640	Information Technology for Business Transformation (3)
MKTG 640	Strategic Marketing in a Global Economy (3)
MGMT 660	Project Management (3)
MGMT 700	Strategic Management Strategic Management in a Global Environment (3)

Electives (12 units)

Electives are 600-to 700-level business courses. Specializations consist of four 3-unit courses. Students may choose any four electives crossing business disciplines to stimulate their intellectual curiosity and/or to best match their career goals. To address a specific business interest, students may choose to earn the MBA degree with a defined specialization.

Specializations

Business Security

This specialization represents an emerging area of business. The Internet age is creating borderless organizations in the 21st century. This is allowing organizations to do business across international borders—which is creating security problems for organizations. Managers need to understand the principles and issues in business and organizational security management.

Required Courses (12 units)

INSS 740	Introduction to Security Management (3)
MGMT 770	Planning, Prevention and Risk Management (3)

Elective Courses (choose two)

ACCT 601	Forensic Accounting Principles (3)
INSS 738	Advanced Database Systems (3)
INSS 741	Information Security Management (3)
INSS 742	Data Mining for Strategic Advantage (3)
INSS 784	Project Management (3)

Entrepreneurship

The entrepreneurship specialization prepares students to start and manage all types of ventures. As part of this specialization, students can partner with high-technology inventors to work on real-life products. Courses stress creativity, feasibility analysis, marketing, financing and intellectual property.

Required Courses (12 units)

MGMT 760	Organizational Creativity, Change and Entrepreneurship (3)
MKTG 762	Market Opportunity Analysis (3)
FIN 770	Entrepreneurial Finance and Venture Capital (3)

Choose one from the following:

MGMT 710	Human Resource and Compensation Management (3)
MGMT 731	Leadership Seminar (3)
MGMT 732	Leadership: Self-Organization in the Firm (3)
MGMT 795	Entrepreneurship Practicum (3)

Finance

The finance specialization offers students many opportunities to learn about the financial management of a business, valuing investments in securities and other assets, and the general structure and functioning of financial institutions and markets. After completing FIN 705 Advanced Financial Management, students can choose courses enabling them to complete either a general finance specialization or a specialization focusing on corporate

finance, investment management or financial institutions.

Required Courses (12 units)

FIN 705	Advanced Financial Management (3)
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Choose three of the following:

ECON 650	Business Economics and Forecasting (3)
FIN 704	Bank Management (3)
FIN 715	Investment Analysis (3)
FIN 720	International Financial Management (3)
FIN 725	Risk Management (3)
FIN 730	Fixed Income Securities (3)
FIN 750	Real Estate Investment (3)
FIN 760	Social Enterprise and Entrepreneurship (3)
FIN 770	Entrepreneurial Finance and Venture Capital (3)
FIN 780	Corporate Restructuring (3)
FIN 797	Special Topics (3)

NOTE: Other courses may be added at the discretion of the Division of Economics, Finance and Management Science faculty.

Health Care Management

This specialization is designed to enable health care professionals to advance their careers by strengthening their credentials as health care managers, administrators and consultants. The Health Care Management specialization provides a sound basis in the latest business practices and gives professionals the opportunity to develop skills necessary for leadership in the health care field.

Choose four from the following (12 units):*

ECON 765	The Health Services System (3)
HSMG 630	The Legal Environment of Health Care Management (3)
HSMG 650	Quantitative Management Methods for Decisions in Health Services (3)
HSMG 691	Health Planning and Program Evaluation (3)
HMSG 697	Health Insurance and Prepaid Health Care (3)

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PUAD 750	Health Care System, Organization and Management (3)
PUAD 751	Policy Issues in Health Care (3)
PUAD 752	Special Topics in Public Health Administration (3)
PUAD 755	Health Administration (3)
PUAD 756	Managed Care Administration (3)
PUAD 757	Strategic Management for Health Care (3)

* Other applicable health care management courses may be available.

Human Resource Management

This specialization is designed for students who wish to focus on the selection, motivation and development of human resources in business, government and nonprofit organizations. Building on a broad understanding of human resources, students will study the field from the point of view of the managerial decision-maker.

Required Courses (12 units)

MGMT 710	Human Resource and Compensation Management (3)
MGMT 712	Employment Law and the Human Resource Manager (3)

Choose two from the following:

MGMT 650	Research for Strategic Human-Resource Management Decisions (3)
MGMT 725	Labor Relations and Conflict Management (3)
MGMT 731	Leadership Seminar (3)
MGMT 732	Leadership: Self-Organization in the Firm (3)
MGMT 780	International Management (3)

International Business

This specialization develops managers and business leaders for rewarding careers in international businesses, government agencies and multicultural organizations. Students gain a theoretical basis for understanding key aspects of international management as applied to

both small companies and multinational corporations. Courses emphasize human relations skills, such as cross-cultural communications and negotiations, and technical skills such as those required for the strategic operation of global organizations.

Required Courses (12 units)

MGMT 780	International Management
MGMT 781	International Business Strategy

Choose two from the following:

FIN 720	International Financial Management (3)
INSS 765	E-Commerce Technologies and Applications (3)
MGMT 757	Electronic Commerce and Supply Chain Management (3)
MGMT 796	Global Business Practicum (3)
MKTG 760	Global Marketing Management (3)

Leadership and Organizational Learning

This specialization complements the cross-functional courses of the UB/Towson MBA program. The three required courses contain timeless ideas influencing how students view leadership, management and professional development. Courses provide a unique perspective on leadership including theory, essential skills, an understanding of evolving organizational forms, and organizational learning and transformation.

Required Courses (12 units)

MGMT 730	Leadership, Learning and Change (3)
MGMT 731	Leadership Seminar (3)
MGMT 732	Leadership: Self-Organization in the Firm (3)

Choose one from the following:

MGMT 710	Human Resource and Compensation Management (3)
MGMT 760	Organizational Creativity, Change and Entrepreneurship (3)

MKTG 760 Global Marketing
Management (3).

Management Information Systems

The MIS specialization is designed to help develop business managers who understand the strategic value of IT, and who can conceptualize and utilize IT solutions to business problems. The program provides a broad exposure to the IT concepts and functions found in most commercial organizations today.

Required Courses (12 units)

INSS 650 Networking and
Telecommunications (3)
INSS 651 Database Management
Systems (3)
INSS 671 Systems Analysis (3)

Choose one from the following:

INSS 701 Internet Development for
Business (3)
INSS 737 Strategic Management of
Information Technology (3)
INSS 738 Advanced Database
Systems (3)
INSS 739 Systems Architecture (3)
INSS 751 Operating Systems (3)
INSS 752 Web Server Management and
CGI Programming (3)
INSS 753 Internet and Network
Security (3)
INSS 765 E-Commerce Technologies and
Applications (3)
INSS 784 Project Management (3)
MGMT 757 Electronic Commerce and
Supply Chain Management (3).

Marketing

This specialization provides knowledge of applications and in-depth analysis in preparation for careers in marketing management, product management, strategic planning and marketing entrepreneurship. The expertise and skills acquired are designed for lifelong value in domestic or international marketing.

Required Courses (12 units)

Choose four from the following:

MGMT 757 Electronic Commerce and
Supply Chain Management (3)
MGMT 780 International Management (3)
MKTG 742 Social, Nonprofit and Public
Sector Marketing
MKTG 755 Integrated Marketing
Communications
MKTG 760 Global Marketing
Management (3)
MKTG 762 Market Opportunity
Analysis (3)
MKTG 770 Product and Brand
Development
Management
MKTG 775 Customer Analysis and
Relationship Management
MKTG 780 Market Information and
Research (3)
MKTG 796 Marketing Practicum (3).

Sport Management

The Sport Management specialization offers students a wide range of sport specific courses that prepare them to be leaders in the 21st-century global sports industry. In these courses, students are practically and theoretically engaged with the ongoing challenges and complexities of sport as a unique part of our society. Graduates from this program will be proficient in putting the latest trends into practice. Students will also be agents of change—capable of interrogating, understanding, pushing the boundaries of the economic, political, and cultural context within which contemporary sport business takes place.

Required Courses (12 units)

MGMT 741 Sport in the Global
Marketplace (3)
MGMT 742 Social and Ethical Issues in
Sport (3)

Choose at least one of the following:

ECON 741 Sports Economics (3)
MKTG 745 Strategic Sport Marketing (3)

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Choose no more than one of the following:

- FIN 705 Advanced Financial Management (3)
- MGMT 710 Human Resource and Compensation Management (3)
- MGMT 725 Labor Relations and Conflict Management (3)
- MGMT 730 Leadership, Learning and Change (3)
- MGMT 780 Market Information and Research (3)
- MGMT 797 Special Topics in Management (3)
- MGMT 799 Independent Study/Individual Research (3)
- MKTG 762 Market Opportunity Analysis (3)

Sustainability Management

Sustainable development is an emerging 21st century paradigm for suggesting action toward the problems of the contemporary world. Traditional models featured financial and physical forms of capital. A sustainability approach helps organizations acquire, manage, and account for multiple forms of capital; financial, physical, human, intellectual, social and natural. Emphasis will be placed on value creation, assessment, and enhancement. Central to the sustainability framework is the requirement for managers to inspire innovative approaches to business reinvention, to effectively manage stakeholders, and to build coalitions for change. Under the emerging 21st century model, corporate sustainability represents a business paradigm shift from traditional approaches to management.

Required Course (3 units)

- MGMT 745 Managing Sustainable Enterprise (3)

Choose three of the following:

- ACCT 780 Sustainability Accounting (3)
- MKTG 742 Social, Non-Profit and Public Sector Marketing (3)
- MGMT 757 E-commerce and Supply Chain Management (3)
- FIN 760 Social Enterprise and Entrepreneurship (3)

Dual Degree Programs

MASTER OF BUSINESS ADMINISTRATION/JURIS DOCTORATE (MBA/J.D.)

With society becoming increasingly complex, the administration of private and public business enterprises requires greater interaction with the legal system. Concurrent with this development, there is an increasing need for lawyers who are fully trained in administration and management. The inclusion of study in a complementary discipline has become an integral component of modern graduate and law schools.

In recognition of this interdisciplinary need, the UB/Towson MBA program offers a combined degree program that is offered through both the University of Baltimore School of Law and the University of Maryland School of Law, leading to both the J.D. and the MBA. The program is designed to offer students the most relevant courses in a sequence that most effectively utilizes the relation inherent between these courses in the two schools.

The MBA/J.D. program allows a student to obtain MBA and J.D. degrees in an integrated sequence of courses over a three to four-year period. The law schools will transfer 9 units of required MBA courses as law electives. The MBA program will transfer 9 units of law electives as MBA electives.

Admission and Advisement

Students need to apply and be admitted to both the respective school of law and the MBA program. The LSAT may be used in lieu of the GMAT for students who have been accepted into the law school. The MBA/J.D. adviser prepares a program plan of study which lists the courses required to meet the MBA degree requirements. The law school also counsels students, particularly with regard to blending the degree requirements. Students do not take business courses during the first year of law school and either begin their MBA after the first year or interrupt the MBA for two terms.

Degree Requirements

Fundamental Courses (18 units)

ACCT 504	Introduction to Accounting Accounting (3)
ECON 504	Economics (3)
FIN 504	Financial Management (3)
MGMT 506	Operations Management (3)
MKTG 504	Marketing Management (3) Principles (3)
OPRE 504	Data Analysis and Decisions (3)

Integrated Core Courses (21 units)

MGMT 600	Leading and Managing People (3)
ACCT 640	Accounting for Managerial Graduate Assistantships Decisions (3)
ECON 640	Economics of Public Policy and Corporate Social Responsibility (3)
FIN 640	Financial Analysis and Strategy (3)
INSS 640	Information Technology for Business Transformation (3)
MKTG 640	Strategic Marketing in a Global Economy(3)
MGMT 6XX	Project Management (3)
MGMT 700	Strategic Management Strategic Management in a Global Environment (3)

MBA Electives (12 units)

Nine units of electives are transferred from the law school. One 3-unit elective must be taken in the MBA program in one of the following disciplines: accounting, finance, information systems, management or marketing.

MASTER OF BUSINESS ADMINISTRATION/MASTER OF ARTS IN JEWISH COMMUNAL STUDIES (MBA/M.A.J.C.S.)

The purpose of the MBA/M.A.J.C.S dual degree program is to facilitate the integration of these two academic programs to prepare students to be professional leaders for the Jewish Commu-

nity of the 21st century. Through a sharing of elective units and flexible scheduling, students will earn the Master of Arts in Jewish Communal Studies (M.A.J.C.S.) and the Master of Business Administration (MBA) degrees in less time than would be required if program requirements were completed separately.

To obtain the M.A.J.C.S. degree, students must earn 39 units. The 51-unit MBA curriculum includes 18 units in business fundamentals, 21 units in integrated core courses and 12 units of electives to give depth to the program. The 39-unit M.A.J.C.S. curriculum includes 18 units in Jewish Studies, 9 units in required professional studies course work, 9 units in contemporary Jewish Studies, research or management and 3 units in an applied internship experience.

Baltimore Hebrew University (BHU) will allow students to use up to 9 units but no less than 6 units obtained in the UB/Towson MBA Program toward fulfilling their M.A.J.C.S. course requirements. The UB/Towson MBA Program will accept up to 9 units but no less than 6 units of pre-approved M.A.J.C.S. courses with management components toward fulfilling the MBA elective course work.

Admission and Advisement

Each school will award its own degree and will have its own admissions process. Students considering participation in the program are encouraged to discuss their interest with representatives of both schools. Application deadlines and admission requirements for both schools are consistent with their current academic programs.

BHU students interested in participating in the dual degree program and who have already achieved an undergraduate degree may apply for entrance to the UB/Towson MBA Program; application during the first year of the M.A.J.C.S. is preferable. Applications during the second year of the M.A.J.C.S. will be considered on a case-by-case basis. The business school application is competitive and admission is not guaranteed to M.A.J.C.S. students. M.A.J.C.S. students are encouraged to discuss their motivation to be trained in both disciplines as part of their personal statement.

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Similarly, students in the MBA program who wish to apply to the M.A.J.C.S. program are not guaranteed admission.

Degree Requirements

Fundamental Courses (18 units)

- ACCT 504 Introduction to Accounting (3)
- ECON 504 Economics (3)
- FIN 504 Financial Management (3)
- MGMT 506 Operations Management and Supply Chain Management (3)
- MKTG 504 Marketing Management 3)
- OPRE 504 Data Analysis and Decisions (3)

Integrated Core Courses (21 units)

- ACCT 640 Accounting for Managerial Decisions (3)
- ECON 640 Economics of Public Policy and Corporate Social Responsibility (3)
- FIN 640 Financial Analysis and Strategy (3)
- INSS 640 Information Technology for Business Transformation (3)
- MGMT 600 Leading and Managing People (3)
- MGMT 6XX Project Management (3)
- MGMT 700 Strategic Management in a Global Environment (3)
- MKTG 640 Strategic Marketing in a Global Economy (3)

MBA Electives (12 units)

Students may choose MBA electives and/or M.A.J.C.S. courses within the management pathway to stimulate their intellectual curiosity and to best match their career goals. Up to 9 credits may be transferred in from the Baltimore Hebrew University. Suggestions, subject to change without notice, include:

- JCS 505 Management of Human Services: Leadership & Supervision
- JCS 506 Strategic Management of Jewish Organizations: Material Resources

- METH 500 Research Methods
- RLIT 515 Jewish Law and Ethics

One elective course (3 units) must be taken in the UB/Towson MBA program. Suggestions, subject to change without notice, include:

- MGMT 710 Human Resource and Compensation Management (3)
- MGMT 712 Employment Law and the Human Resource Manager (3)
- MGMT 725 Labor Relations and Conflict Management (3)
- MGMT 730 Leadership, Learning and Change (3)
- MGMT 732 Leadership: Self-Organization in the Firm (3)
- MGMT 760 Organizational Creativity, Change and Entrepreneurship (3)

MASTER OF BUSINESS ADMINISTRATION/MASTER OF ARTS IN JEWISH EDUCATION (MBA/M.A.J.E.)

The purpose of the M.A.J.E./MBA dual degree program is to facilitate the integration of these two academic programs to prepare students to be professional leaders for the Jewish community of the 21st century. Through a sharing of elective units and flexible scheduling, students will earn the Master of Arts in Jewish Education (M.A.J.E.) and the Master of Business Administration (MBA) degrees in less time than would be required if program requirements were completed separately.

To obtain the MAJE degree, students must earn 39 units. The 51-unit MBA curriculum includes 18 units in business fundamentals, 21 units in integrated core courses and 12 units of electives to give depth to the program.

Baltimore Hebrew University (BHU) will allow students to use 9 units but no less than 6 units obtained in the University of Baltimore/Towson University MBA Program toward fulfilling their M.A.J.E. course requirements. The UB/Towson MBA Program will accept up to 9 units but no less than 6 units of pre-approved M.A.J.E. courses with adminis-

trative/management components toward fulfilling the MBA elective course work.

Admission and Advisement

Each school will award its own degree and will have its own admissions process. Students considering participation in the program are encouraged to discuss their interest with representatives of both schools. Application deadlines and admission requirements for both schools are consistent with their current academic programs.

BHU students interested in participating in the dual degree program and who have already achieved an undergraduate degree may apply for entrance to the UB/Towson MBA Program; application during the first year of the M.A.J.E. is preferable. Application during the second year of the M.A.J.E. will be considered on a case-by-case basis. The business school application is competitive and admission is not guaranteed to M.A.J.E. students. M.A.J.E. students are encouraged to discuss their motivation to be trained in both disciplines as part of their personal statement. Similarly, students in the MBA program who wish to apply to the M.A.J.E. program are not guaranteed admission.

Degree Requirements

Fundamental Courses (18 units)

ACCT 504	Introduction to Accounting (3)
ECON 504	Economics (3)
FIN 504	Financial Management (3)
MGMT 506	Operations Management and Supply Chain Management (3)
MKTG 504	Marketing Management (3)
OPRE 504	Data Analysis and Decisions (3)

Integrated Core Courses (24 units)

ACCT 640	Accounting for Managerial Decisions (3)
ECON 640	Economics of Public Policy and Corporate Social Responsibility (3)
FIN 640	Financial Analysis and Strategy (3)
INSS 640	Information Technology for Business Transformation (3)

MGMT 600	Leading and Managing People (3)
MGMT 6XX	Project Management (3)
MGMT 700	Strategic Management in a Global Environment (3)
MKTG 640	Strategic Marketing in a Global Economy (3)

MBA Electives (12 units)

Students may choose MBA electives and/or M.A.J.E. courses within the management pathway to stimulate their intellectual curiosity and to best match their career goals. Up to 9 credits may be transferred in from the Baltimore Hebrew University. Suggestions, subject to change without notice, include:

EDUC 505	Management of Human Services: Leadership & Supervision
EDUC 506	Strategic Management of Jewish Organizations: Material Resources
EDUC 513	Theoretical and Practical Dimensions of Education Administration
EDUC 542	Human Relations for School Administrators
EDUC 602	Supervised Administrative Internship
METH 500	Research Methods
RLIT 515	Jewish Law and Ethics

One elective course (3 units) must be taken in the UB/Towson MBA program. Suggestions, subject to change without notice, include:

MGMT 710	Human Resource and Compensation Management (3)
MGMT 712	Employment Law and the Human Resource Manager (3)
MGMT 725	Labor Relations and Conflict Management (3)
MGMT 730	Leadership, Learning and Change (3)
MGMT 732	Leadership: Self-Organization in the Firm (3)
MGMT 760	Organizational Creativity, Change and Entrepreneurship (3)

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MASTER OF BUSINESS ADMINISTRATION/MASTER OF SCIENCE IN NURSING ADMINISTRATION (MBA/M.S.)

The UB/Towson MBA, in conjunction with the University of Maryland School of Nursing, offers a dual-degree MBA/M.S. in Nursing Administration to students seeking advanced preparation in business administration and nursing administration.

The 66-unit curriculum combines elements of the MBA and M.S. programs and can be completed in two years of full-time study. Students may apply to both programs concurrently or they may apply first to the nursing program and later to the business program when it is appropriate to begin joint-degree course work. Individuals must meet each school's admission requirements.

Starting on the first day of matriculation, a maximum of seven years is allowed for the completion of the joint program. Contact the Office of Admissions at the University of Baltimore and at the University of Maryland School of Nursing for further information, or call 410-837-4944.

Indicated on students' program plans of study are any graduate core courses that need to be taken. Students will be required to complete those courses listed unless they have completed the undergraduate equivalent course(s) prior to entering the program. To earn the MBA degree, students must complete the following curriculum:

Degree Requirements

The UB/Towson MBA program requires the completion of 19 units in business fundamentals, 21 units in integrated core courses and 9 units of electives.

Fundamental Courses (18 units)

ACCT 504	Introduction to Accounting (3)
ECON 504	Economics (3)
FIN 504	Financial Management (3)
MGMT 506	Operations and Supply Chain Management (3)
MKTG 504	Marketing Management (3)
OPRE 504	Data Analysis and Decisions

Integrated Core Courses (24 units)

ACCT 640	Accounting for Managerial Decisions (3)
ECON 640	Economics of Public Policy and Corporate Social Responsibility (3)
FIN 640	Financial Analysis and Strategy (3)
INSS 640	Information Technology for Business Transformation (3)
MGMT 600	Leading and Managing People (3)
MGMT 6XX	Project Management (3)
MGMT 700	Strategic Management in a Global Environment (3)
MKTG 640	Strategic Marketing in a Global Economy (3)

MBA Electives (9 units)

NURS 622	Systems in Health Care Delivery (3)
NURS 691	Organizational Theory (3)
NURS 692	Administration of Nursing Services (3) (or NURS 709 Managed Care Services)

MASTER OF BUSINESS ADMINISTRATION/DOCTOR OF NURSING ADMINISTRATION (MBA/PH.D.)

The UB/Towson MBA, in conjunction with the University of Maryland School of Nursing, offers a dual-degree MBA/Ph.D. in Nursing Administration to students seeking advanced research and practice-based study in the fields of nursing and business administration.

The 85-unit curriculum combines elements of the Ph.D. and MBA programs and can be completed in four years of full-time study. Students may apply to the nursing program first and later apply to the business program when it is appropriate to begin joint-degree course work. Individuals must meet each school's admission requirements and complete core and cross-functional courses.

Students follow the same business curriculum as the MBA/M.S. students for the core and cross-functional courses (see preceding pages).

MBA Electives (12 units)

NURS 812	Seminar in Nursing Measurement (3)
NURS 813	Design of Nursing Research I (3)
NURS 814	Design of Nursing Research II (3)
NURS 818	Special Topics in Nursing Research (3)

FIN 640	Financial Analysis and Strategy (3)
INSS 640	Information Technology for Business Transformation (3)
MGMT 600	Leading and Managing People (3)
MGMT 700	Strategic Management in a Global Environment (3)
MKTG 640	Strategic Marketing in a Global Economy (3)

MASTER OF BUSINESS ADMINISTRATION/DOCTOR OF PHARMACY (MBA/PHARM.D.)

The UB/Towson MBA, in conjunction with the University of Maryland School of Pharmacy, offers a dual-degree MBA/Pharm.D. program that provides Doctor of Pharmacy students with management skills and teaches them how to develop entrepreneurial capabilities for a pharmacy career in a diverse range of health care areas. Enrollment in the dual-degree program allows for the transfer of seven pharmacy courses toward the MBA.

Degree Requirements

The UB/Towson MBA program requires the completion of business fundamentals (17 units), integrated core courses (21 units) and elective courses (12 units).

Fundamental Courses (18 units)

ACCT 504	Introduction to Accounting (3)
ECON 504	Economics (3)
FIN 504	Financial Management (3)
MGMT 506	Operations and Supply Chain Management (3)
MKTG 504	Marketing Management (3)
OPRE 504	Data Analysis and Decisions (3)

Cross-Functional Courses (18 units)

ACCT 640	Accounting for Managerial Decisions (3)
ECON 640	Economics of Public Policy and Corporate Social Responsibility (3)

MBA Electives (12 units)

Choose one 3-unit elective from the School of Business and 9 units from the following:

PHAR 520	Organizational Behavior (3)
PHAR 522	Context of Health Care (3)
PHAR 523	Ethics in Pharmacy Practice (1)
PHAR 580	Pharmacy Law (2)
PHMY 522	Business Plan Development (2)
PHMY 577	Pharmaco-economics (3)
PHMY 583	Management of Health Systems (3)

Admission

Pharm.D. students must have a bachelor's degree or four years of college to be eligible for admission to the MBA program. Applicants must file an application with the UB/Towson MBA and request that the UMB School of Pharmacy Student Affairs Office send copies of their pre-pharmacy transcripts to the Office of MBA Admissions. If the applicant has not taken the GMAT, the PCAT will be substituted.

GRADUATE CERTIFICATE IN LEADERSHIP

To receive a Certificate in Leadership, a student would be required to complete twelve credit hours of prescribed coursework and maintain a cumulative GPA of not less than 3.000 for courses taken in the certificate program. The coursework must be completed after a student has received a BS/BA. or equivalent degree. Certificate requirements must be completed within two years of enrolling in the certificate program.

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Required Courses

The program's curriculum would consist of the following courses, all of which are three credit courses. Completion of any four of these is required to complete the certificate.

- MGMT 600 Leading with Integrity (3)
- MGMT 730 Leadership, Learning and Change (3)
- MGMT 731 Leadership Seminar (3)
- MGMT 732 Leadership: Self-organization in the Firm (3)
- MGMT 760 Organizational Creativity, Change and Entrepreneurship (3) *Prerequisite, MGMT 600

Application Requirements

Please send required admission materials to:

The UB/Towson MBA Program
Office of Admissions
1420 N. Charles St.
Baltimore, MD 21201

- **Application:** Complete your application online through the UB/Towson website

(www.ubtowsonmba.com). Questions about the application should be directed to Carol Abraham, Coordinator of CBE Graduate Services, 410-704-6163.

- **Personal Statement:** Detail your reasons for seeking the certificate, your short-and long-term professional and personal goals, and how you think certificate will help you achieve them. Provide any additional information highlighting unique aspects of your candidacy to the Admissions Committee. Please limit statement to 1,000 words.
- **Transcripts:** Submit one copy of the official transcript from all institutions attended.
- **Letters of Recommendation:** Provide two letters of recommendation addressing your abilities to successfully complete a graduate business program, and indicating what contributions you can make to program.
- **Resume:** Provide a current resume or a list detailing your employment history (including dates, titles, organizational responsibilities, professional memberships and voluntary memberships).



THE COLLEGE OF EDUCATION

As the first teacher-training institution in Maryland, Towson University has a distinguished history in the preparation of classroom teachers, educational specialists and school leaders. Programs of study in the College of Education include baccalaureate degrees with teacher certification in early childhood education, elementary education and special education. The College of Education offers a program leading to teacher certification in secondary education for those (post-master's) enrolled in baccalaureate degree programs in other colleges of the university.

Programs at the graduate level lead to master's degrees with initial or advanced certification in teaching, special education, school administration, reading specialist and media specialist. Master's degree programs in early childhood education, elementary education and secondary education are aligned with the certification standards of the National Board for Professional Teaching. Doctoral as well as master's degrees are offered in the area of instructional technology. Programs of study within the College of Education are constantly assessed and reorganized to provide students at all levels with a professional education based on current research, models of best practice and the needs of the larger professional community.

Faculty members in the College of Education actively participate in the academic community as teachers, scholars and advisers. All are dedicated to the mission of the college as it applies to all educators in all programs: to inspire, educate and prepare facilitators of active learning for diverse and inclusive communities of learners in environments that are technologically advanced.

Raymond P. Lorion, Dean
Thomas D. Proffitt, Associate Dean

COLLEGE OFFICE
Hawkins Hall 304
410-704-2570
Fax: 410-704-2733
www.towson.edu/coe

Doctoral Degree Program

Instructional Technology

Certificates of Advanced Study (post-master's)

Early Childhood Education
Organizational Change

(See Interdisciplinary Programs section)

Reading Education

Master's Degree Programs

Early Childhood Education
Educational Leadership

(See Interdisciplinary Programs section)

Elementary Education
Instructional Technology
Reading
Secondary Education
Special Education
Teaching

Certification

Administrator I

(See Interdisciplinary Programs section)

- Human Resource Development
- Educational Leadership Track
- Certificate of Advanced Study:
 - Administrator I Track
 - Reading Specialist
 - Media Specialist

Essential Dispositions for Educators

At Towson University, we recognize the importance of preparing candidates who are worthy to join the education profession. All students enrolled in the Professional Education Unit programs are expected to develop a professional conscience by demonstrating dispositions necessary to work with diverse and inclusive communities of learners. As candidates progress through course work and field experiences they are expected to demonstrate increased understanding and eventual mastery of three essential dispositions: 1) commitment to professional practice; 2) caring for success and well-being of all students; and 3) collaboration with colleagues and stakeholders.

TEEB Professional Behavior Policy

The Teacher Education Executive Board (TEEB) reserves the right for each department/program to refuse, deny or revoke the application for admission to professional education programs or continuation in professional education programs of any student whose observed conduct is deemed incongruent with established guidelines of professional behavior.

As a professional discipline, education is "vested by the public with a trust and responsibility requiring the highest ideals of professional service." All teacher education students agree to accept "the responsibility to adhere to the highest ethical standards of professional behavior."¹ Placing the importance of professional behavior and duties above one's own convenience is the cornerstone of professionalism.

All teacher education students are responsible for understanding department and program-specific professional expectations. In addition to fulfilling all academic requirements, successful completion of all field experiences requires demonstrated professional behavior including, but not limited to, punctuality, attendance, professional attire, discretion, respect for confidentiality, effective and appropriate communication with university and school-based students and personnel and acceptance of diversity.

All teacher education students must exhibit behavior that is consistent with the university's Code of Conduct and established professional practice in education and clinical settings. Successful completion of all field experiences is a requirement for continuation in the education program.

1 National Education Association, Code of Ethics of the Education Profession, 1975.

MARYLAND WRITING PROJECT

Office: Hawkins Hall 403C

410-704-3593

Director: Barbara J. Bass

410-704-4573

bbass@towson.edu

Co-Director: Catherine Hearn

chearn@towson.edu

The Maryland Writing Project (MWP), a site of the National Writing Project, is housed in Towson University's College of Education. MWP is supported by the colleges of Education and Liberal Arts. Established in Baltimore in 1981, the MWP is a teacher-driven professional development organization for teachers across the content areas in grades pre-K through university. Its mission is to identify, train and support excellent teachers so that they can share with others their knowledge and experience in teaching writing and in using writing as a learning tool. Teachers participate in an invitational Summer Institute to become teacher-consultants. They research, develop and share best writing practices in order to affect change in their classrooms, schools and school systems.

The MWP offers both undergraduate and graduate courses. Maryland Writing Project teacher-consultants serve as instructors for EDUC 301 Writing and Communication Skills for Teachers. They also teach SCED 399 Differentiated Student Teaching, which is offered during the summer in conjunction with a camp for young writers called the Student Writers' Workshop. At the graduate level, MWP-trained teacher-consultants teach SCED 605, the 6-unit Summer Teacher Institute;

EDUC 734, the Teacher Inquiry Institute; EDUC 667 Writing as Thinking; and EDUC 661 Responding to and Evaluating Writing. They also teach special topics courses at the graduate level throughout the year.

Finally, the MWP offers Maryland State Department of Education-approved, in-service professional development workshops and graduate courses in school systems across the state.

EARLY CHILDHOOD EDUCATION

Degree: Master of Education

Program Director: Edyth J. Wheeler

410-704-2460

ejwheeler@towson.edu

The M.Ed. in Early Childhood Education is an advanced degree program designed to prepare the degree candidate for a future professional role, to increase competence in a current career role, or to provide a step toward further study in the field of early childhood education. It is not an initial teaching certification or licensure program, but an opportunity for increased professional development at the graduate level. The M.Ed. in Early Childhood Education is recommended for practitioners in a wide range of programs for children from birth through age 8 in a variety of community settings. Their roles may include administration, supervision and mentoring in early childhood programs; pre-elementary or primary grade teaching; family/community support; early intervention; resource and referral; program licensing; infants and toddlers specialist; as well as many others. Guiding principles include an interdisciplinary perspective, collaboration, mentoring and advocacy, with a foundation of the most current knowledge base in early childhood and best practice for all young children and families.

The 33-unit program consists of seven required courses and four elective courses supporting a designated Area of Focus, designed to provide each student with a deeper understanding of the knowledge base in the field, while supporting individual areas of profes-

sional specialization and academic interest. The faculty in the Department of Early Childhood Education has developed specific courses to support students in their professional development and in their future contributions to the field of early childhood education through their chosen career paths. The M.Ed. in Early Childhood Education is aligned with NAEYC Standards for Early Childhood Professional Preparation in Advanced Programs.

Recommended Areas of Focus for M.Ed candidates are:

Early Childhood Accomplished Teacher: Advanced professional study to develop candidates as master teachers and mentors in their professional settings and may prepare candidates for NBPTS certification.

Early Childhood Administrator/Program Director: Advanced professional study to prepare candidates to become, or to increase their effectiveness as administrators, supervisors or directors in schools, centers and non-traditional programs for young children and families.

Early Childhood Family Specialist: Advanced professional study to prepare candidates to specialize in work with the families of young children in a variety of roles and settings. This Area of Focus will also meet requirements for a post-baccalaureate Family-Professional Collaboration Certificate.

Admission Requirements

- A baccalaureate degree from an accredited college or university.
- A minimum undergraduate GPA of 3.00 is required for full admission and 2.75 for conditional admission to the program. All GPA calculations are based on the last 60 units of undergraduate and post-baccalaureate study.
- Experience/Background in the field:

One or more of the following:

- An undergraduate degree or graduate course work in Early Childhood Education, child development, family studies or a related field or

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- Teacher certification in early childhood education *or*
- Teacher certification in elementary education plus 6 units in early childhood education *or*
- A minimum of three years of professional experience in an early childhood program or related setting serving young children from birth to age 8 *or*
- Undergraduate courses in the following areas:
 - educational psychology or psychology of learning
 - child growth and development
 - curriculum and methods in early childhood education
- Exceptional candidates who do not meet the specific criteria above may be considered for admission, if they intend to work in settings with children from birth through age 8. In these instances, an interview with the program director will be required.
- A current resumé submitted with the application for admission as well as all post-secondary transcripts. Send to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252.

NOTE: The M.Ed. in Early Childhood Education is an advanced program and does not lead to initial teacher certification in early childhood education. Individuals interested in post-baccalaureate initial certification should contact the Early Childhood Education graduate director for further information about certificate options within the M.Ed..

Degree Requirements

The Master of Education in Early Childhood Education requires a minimum of 33 units, including the following:

- Completion of required prerequisite courses
- Course work for the degree
- Goals Statement: At the beginning of the program, students will select an Area of Focus to guide their professional growth in their graduate study and will submit a Goals Statement. This document will serve as a plan so that students may achieve their indi-

vidual professional and academic objectives in their Area of Focus

- Graduate Professional Portfolio: Each student will present a professional portfolio as an exit requirement to the program. Along with ECED 773 (or ECED 898), the portfolio will provide a capstone experience. It will demonstrate integrated graduate level learning and evidence of essential professional dispositions, and will reflect the student's growth as a professional and leader in the chosen area of specialization in the field of early childhood education. An ongoing collection of graduate work, it will serve as a synthesis of learning throughout the degree course work and reflect NAEYC Standards for Advanced Professional Preparation.

Required Courses (21 units)

ECED 607	Learner Diversity and Inclusion in Early Childhood Education (3)
ECED 609	Growth and Development of Young Children (3)
ECED 610	Learning Environments: Curriculum and Technology or equivalent (3)
ECED 611	Teacher as Researcher (3)
ECED 619	Assessment, Observation and Evaluation in Early Childhood Education (3)
ECED 665	Curriculum Theory and Development (3)
ECED 773	Seminar in Early Childhood Education (3)

Electives (12 units)

These courses will support the candidates Area of Focus or specialization as indicated on initial Goals Statement and are to be selected from departmental elective courses or up to 6 units from another department with permission.

Grade Requirements

All students must complete ECED 773 with the grade A or B (the course may be repeated) or successfully complete ECED 898 Thesis.

Course Sequence

The first 6 units of the graduate program are ECED 611 Teacher as Researcher and ECED 609 Growth and Development of Young Children. These two courses must be completed before other courses are taken, except for students who begin degree course work during the summer. The final, or capstone, course is ECED 773 Seminar in Early Childhood Education. In ECED 773, students are provided an opportunity to develop a creative and interdisciplinary statement of their professional identity, as they articulate their views on why they care about children and why they do what they do. All other course work must be completed prior to taking this course.

Thesis Option

As an alternative to ECED 773, students may elect the ECED 898 Thesis in Early Childhood Education. This option is available for students who may wish to pursue doctoral studies at a later date or who have identified a strong commitment to a specific topic of inquiry they wish to pursue in great depth. Students who elect the Thesis Option will take the 6-unit ECED 898 Thesis in place of the 3-unit ECED 773 Seminar and 3 elective units.

Certificate Options Within the M.Ed.

M.Ed. Plus Certification: M.Ed. Plus Certification: The M.Ed. Plus provides a certification option for Early Childhood graduate students who already have a background in the field of early childhood education in addition to increased professional development at the graduate level. The M.Ed. in Early Childhood Education is recommended for graduate students with undergraduate degrees or significant experience in early childhood Education, child development or child and family studies or who are practicing professionals working with young children and families. The M.Ed. Plus consists of the seven required courses and four elective courses in the M.Ed. that are geared toward certification as well as additional units in specific areas to meet certification requirements. These additional units

will be determined based on prior experience and course work and may include courses in the teaching of reading and internships. The M.Ed. Plus may require more than the 33 units for the basic M.Ed.

Post-baccalaureate Family-Professional Collaboration Certificate: Family/home collaboration is a vital aspect of Early Childhood professional practice. One of the Areas of Focus in the M.Ed. in Early Childhood Education at Towson is the Early Childhood Family Specialist. Graduate students selecting this Area of Focus will complete the requirements for the Post-Baccalaureate Certificate in Family-Professional Collaboration within their master's degree program. These students must also meet with the director of the Post-Baccalaureate Certificate Program in Family Studies for advising on course requirements for the certificate program. Students will take the following courses as three of their electives in the M.Ed. in order to obtain the

Family Studies Certificate:

- FMST 601 Applied Family Relationships (3)
- FMST 610 Family-Professional Collaboration (3)
- FMST 620 Project in Family Focused Program Development (3)

For more information about the Post-baccalaureate Family-Professional Collaboration Certificate, see the description in the Interdisciplinary Programs section of the catalog.

National Board for Professional Teaching Standards Preparation: One of the Areas of Focus in the M.Ed. in Early Childhood Education is Early Childhood Accomplished Teacher. NAEYC Standards addressed in the M.Ed. required courses are aligned with the National Board for Professional Teaching Standards. Graduate students who are teachers in public school settings may further focus their elective courses to work toward preparation of the portfolio and documentation required for this certification and recognition as master teachers.

EARLY CHILDHOOD EDUCATION C.A.S.

Certificate: Certificate of Advanced Study
Program Director: Edyth J. Wheeler
410-704-2460
ejwheeler@towson.edu

The Certificate of Advanced Study (C.A.S.) in Early Childhood Education is a post-master's program that is in clear alignment with the mission and vision of the university and the College of Education and is responsive to the needs of early childhood professionals. This 30-unit post-master's certificate program is designed to address the need for increasing professionalism and leadership for those who work in variety of settings with young children from birth through age 8 and their families. The C.A.S. will prepare graduate students to assume greater roles as advocates and policy specialists, administrators, family specialists, master teachers, researchers and teacher educators, and may lead to later doctoral study. Guiding principles for the C.A.S., as for the M.Ed., include an interdisciplinary perspective, collaboration, mentoring, professional dispositions and advocacy, with a foundation of the most current knowledge base in Early Childhood and best practice for all young children and families, consistent with national professional standards and positions.

The C.A.S. in Early Childhood Education is a 30-unit program aligned with the National Association for the Education of Young Children (NAEYC) Standards for Advanced Professional Preparation in Early Childhood Education and structured to reflect advanced areas of specialization for professionals in the field. Individualized as well as interdisciplinary, the program is based on an 18-unit core of required courses and a 12-unit Area of Focus to be selected by the candidate. The Core includes 6 units of internship aligned with the Area of Focus.

Admission Requirements

- A master's degree in Early Childhood Education or related field from a nationally accredited institution

- An overall GPA of 3.75 or above for graduate work

Send the following admission materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252:

- Completed Graduate Application
- Official transcripts for undergraduate and graduate course work
- A letter of application describing professional goals for advanced graduate study and proposed Area of Focus
- Current resumé or curriculum vita
- Three letters of recommendation that describe the candidate's professional experience and academic work

Certificate Requirements

Required Courses (18 units)

ECED 694	Internship (6)
ECED 760	Critical Perspectives in Early Childhood (3)
ECED 750	Program Development and Evaluation (3)
ECED 762	Leadership and Advocacy in Early Childhood Education (3)
ECED 764	Social Justice and Ethics: An Educational Perspective (3)

NOTE: Candidates for the Administrator I Certificate will take 3 units of ECED 694 Internship in Early Childhood Education and 3 units of ELED 797 Internship in Educational Leadership.

Electives (12 units)

Candidates will determine an Area of Focus as they begin the program and, with approval of the program director or adviser, will select four elective courses to support that area.

Areas of Focus and Recommended Electives for C.A.S. Candidates:

1. Early Childhood Advocate/Policy Specialist (will prepare candidates to act as advocates for children, families and the profession, specializing in a particular issue or area of

need or developing more generalized advocacy and public policy skills). Candidates will work with program director or adviser to identify specific professional goals and select electives to support those goals. Suggested elective choices may include:

ECED 694 Internship (an additional 3 units for full-time public policy work on Capitol Hill, in Annapolis or with professional organization advocacy groups)

HRD elective or related field: Organizational and Environmental Change

ILD 603 School Law

POSC elective or related field: Government and Legislative Processes

WMST, SOCI, ECON elective or other issue-specific elective

2. Early Childhood Teacher Educator/Researcher (will prepare candidates for doctoral study at Towson or elsewhere, for teaching in institutions of higher education or for research). Candidates will work with program director or adviser to identify specific professional goals and select electives to support those goals. Suggested elective categories may include:

Research methods (EDUC 715 Statistics, new EDUC courses in Qualitative Methods, Advanced Qualitative or Statistical Methods)

ISTC elective course in Instructional Technology

ECED elective course to support specialization for teacher educators

ECED 695 Independent Study: Research and Writing for Publication

NOTE: New EDUC course numbers have not been published at this time.

3. Early Childhood Family Specialist (will prepare candidates for further work with families of young children and will also meet requirements for a Family-Professional Collaboration Certificate). Candidates will

work with the program director or adviser as well as the program director for Family Studies to determine electives in this Area of Focus:

FMST 601 Applied Family Relationships

FMST 610 Family-Professional Collaboration

FMST 620 Project in Family Focused Program Development

ECED or FMST elective or related field

4. Early Childhood Accomplished Teacher (will support candidates in preparation for NBPTS certification.) Candidates will choose four electives as needed to supplement prior course work in order to align with NBPTS. ECED 694 Internship may focus on mentorship or portfolio building. Candidates who did not receive the M.Ed. at Towson may include one or more of the required courses for the M.Ed. Possible elective choices:

ECED 604 Math/Science in the Early Childhood Education Program

ECED 608 Teaching and Learning Social Studies in Early Childhood Education

ECED 612 Conflict Resolution and Management in Programs for Young Children

ECED 623 The Art of Reading and Writing in Primary Grades and Kindergarten

or

ECED 680 Celebrating Young Children: Curriculum and Best Practices in Early Childhood Education

REED xxx Elective in Reading

ISTC xxx Elective Instructional Technology

5. Early Childhood Administrator: Public School Emphasis (building on M.Ed. course work, will prepare candidates in public school settings to meet requirement for the Administrator I Certificate). There are six required courses for Administrator I Certificate. In addition to ECED 665 Curriculum Theory and Development (required in the

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M.Ed.) and ELED 797 Internship in Educational Leadership, electives in this Area of Focus will be:

- ILDP 603 School Law
- ILDP 668 Leadership and Group Dynamics
- ILDP 781 Seminar in Supervision
- ILDP 716 Leadership of the Schools

ELEMENTARY EDUCATION

Degree: Master of Education

Program Director: Linda Emerick

410-704-4251

lemerick@towson.edu

The Master of Education in Elementary Education is an advanced program of study that provides opportunities for experienced educators (grades 1-8) to meet the challenges of a dynamic profession. The program of study helps the student achieve the following goals:

- Develop advanced competencies in curriculum development, evaluation and instructional design.
- Develop an understanding of the diverse nature of learners and society.
- Assume leadership roles in the profession.
- Use technology to enhance learning.
- Understand and use appropriate assessment and evaluation (assessment literacy).
- Engage in scholarly activities.
- Think and reflect critically about the educational process and professional practice (essential dispositions).

The goals and objectives of the degree program are based on MSDE Professional Development Standards and the core propositions endorsed by the National Board for Professional Teaching Standards. The areas addressed by the standards are reflected in the required and elective courses.

Admission Requirements

- Completion of a bachelor's degree from an accredited institution of higher education.
- An overall minimum undergraduate GPA of 3.00 for full admission to the program, and a 2.75 GPA for conditional admission, based on the last 60 credits of total undergraduate and post-baccalaureate study

- Maryland teaching certification, eligibility for teaching certification, or permission of the program director
- Minimum one year teaching/training experience beyond undergraduate program.

NOTE: This master's degree program is not accompanied by automatic state certification. Non-certified applicants should contact the director or their adviser prior to enrolling in course work.

Degree Requirements

- Completion of required prerequisite courses
- Completion of ELED 775/SCED 781 Integrated Professional Practice Seminar, with a grade of A or B (the course may be repeated only once) or completion of ELED 897 Thesis
- Completion of 33 units of required courses and electives as specified below

NOTE: Graduate students enrolled in the Master of Education in Elementary Education program may transfer a maximum of 9 credits of graduate-level course work required for their degree program. Additional credit may be accepted in special circumstances, with approval of the program director.

Program of Study A: Master of Education with Seminar (33 units)

Required Courses (18 units)

- EDUC 605 Research and Information Technology (3)
- EDUC 660 Teaching in a Multicultural Society (3)
- EDUC 761 Research in Education (3)
- ELED 647 Advanced Processes of Teaching and Learning (3)
- ELED 665 Curriculum Theory and Development (3)
- ELED 775 Integrated Professional Practice Seminar (3) (By permission only. Students must meet with adviser one term prior to enrolling in this course.)

Electives (15 units)

Electives may be selected from one, two or more areas of focus, based on the graduate student's professional goals. Areas of focus include curriculum and instruction, leadership, technology, diversity and learning, assessment and evaluation, and content areas. Students may select electives from other departments in consultation with their adviser. A maximum of 6 units may be taken at the 500 level.

Program of Study B: Master of Education with Thesis (33 units)**Required Courses (21 units)**

EDUC 605	Research and Information Technology (3)
EDUC 660	Teaching in a Multicultural Society (3)
EDUC 761	Research in Education (3)
ELED 647	Advanced Processes of Teaching and Learning (3)
ELED 665	Curriculum Theory and Development (3)
ELED 897	Master's Thesis in Elementary Education (6) (Students must meet with adviser one term prior to enrolling in this course.)

Electives (12 units)

Electives may be selected from one, two or more areas of focus, based on the graduate student's professional goals. Areas of focus include curriculum and instruction, leadership, technology, diversity and learning, assessment and evaluation, and content areas. Students may select electives from other departments in consultation with their adviser. A maximum of 6 units may be taken at the 500 level.

HUMAN RESOURCE DEVELOPMENT: EDUCATIONAL LEADERSHIP

Degree: Master of Science

Director: Jane Neapolitan

410-704-4954

jneapolitan@towson.edu

The Master of Science in Human Resource Development (HRD) is an interdisciplinary program designed to provide students with specific knowledge and practical skills within a variety of human resource fields. The curriculum is designed to meet the needs of individuals with varied academic backgrounds and professional experience. The program emphasizes the application of theory and research to practical human resource issues within business, government, nonprofit organizations and education.

The Educational Leadership Track is designed for certified teachers and other licensed professionals working in schools who aspire to become educational leaders and administrators at local and state levels. This program is approved by the Maryland State Department of Education (MSDE) for those seeking certification as Administrator I.

Admission Requirements

- Certification as a teacher or licensure as a school professional is preferred.
- The minimum GPA required for admission is 3.00. Students who have a minimum GPA of 2.80 may be considered for admission.

Send the following admission materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252:

- Two letters of recommendation are required. One letter of recommendation must be from a school administrator.
- A one page personal statement indicating why the applicant is interested in pursuing graduate study in this track. The statement should include commitment to the profession, caring for the success of students, and collaboration with the community.

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Degree Requirements

- Students must take a minimum of 36 units as prescribed in their program and selected in consultation with the adviser.
- Students must submit a portfolio upon completion of internship experiences, and aligned with standards and assessments.
- Demonstration of proficiency by attaining a passing grade on the comprehensive examination. Students must take the comprehensive examination prior to enrolling in the internship.
- Attainment of highest levels on assessment of professional dispositions.

Required Courses (18 units)

ILPD 603	School Law (3)
ILPD 667	Curriculum & Assessment for Instructional Leaders (3)
ILPD 668	Leadership & Group Dynamics (3)
ILPD 716	Leadership of the Schools (3)
ILPD 781	Seminar in Supervision (3)
ILPD 797	Internship in Educational Leadership (3)

Electives (18 units)

Choose from the following courses or others in consultation with the adviser:

EDUC 605	Research & Information Technology (3)
ILPD 614	Classroom Assessment for Instructional Leaders
ILPD 672	Leadership Theory & Practice
ILPD 671	Special Topics: Writing for Educational Leaders
ILPD 740	Data-Based Decision Making for Curriculum and Instruction (3)
ILPD 742	Transformational Leadership & Professional Development (3)
ILPD 743	Learning Communities & Organizational Change (3)
ILPD 744	Interpersonal Relations & Group Dynamics (3)
ILPD 745	School Budgeting & Fiscal Issues (3)
ISTC 702	Educational Leadership & Technology (3)

INSTRUCTIONAL TECHNOLOGY (ED.D.)

Degree: Doctor of Education
Program Director: Bill Sadera
410-704-2731
bsadera@towson.edu

The Doctor of Education (Ed.D.) in Instructional Technology will review applications twice per year, following the dates specified at the end of this section. The Ed.D. is based upon the understanding of education settings (schools and beyond) as learning communities immersed in a world of technology within which: 1) students are nurtured and challenged to meet the high expectations established for them; 2) community leaders are engaged in these communities to support them; and 3) teachers, supervisors and administrators must take the lead in integrating technology into these communities through continuous professional development. Thus, the program focuses on the development of instructional technology expertise to meet the present and future needs of technology integration in instruction across the educational spectrum.

The objectives of the Ed.D. in Instructional Technology are to:

- Develop knowledge and skills in the theory, foundation and philosophy to employ instructional technology in a wide range of educational practice
- Provide advanced skills and abilities for teachers and trainers who are innovative, change agents for integrating technology into education and human resource development organizations
- Acquire advanced skills in research, assessment and evaluation strategies in the applications of technology in education and training environments
- Provide experiences for employing technology effectively in pre-K through 16 learning environments to promote reform and enhance learning
- Develop knowledge, skills and abilities for teaching via online and digital environments to create and ensure high quality and effective learning communities

- Create skilled and highly capable professionals who are able to lead educational organizations to make effective decisions about the appropriate uses of technology in learning and teaching

Admission Requirements

- Successful completion of a master's degree in instructional technology or related field from a regionally accredited institution.
- An overall GPA of 3.00 or above for undergraduate degree work is required. Graduate work should be at a GPA level of 3.75, though GPAs as low as 3.40 can be considered.
- For international students a TOEFL score of 600 or above is required.
- Interview may be required upon the request of the Admissions Committee of the Instructional Technology faculty.

Send the following admission materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252:

- Letter of intent describing professional goals in seeking the degree and area(s) of interests/specializations
- GRE test must be taken, and applicants must submit the three general scores in analytic, quantitative and verbal areas.
- Letters of recommendation from two professionals, including one from a professional familiar with the academic work of the candidate
- Academic writing sample
- Submission of digital portfolio elements that demonstrate the integration of technology into the applicant's field of expertise (such as instruction or training)

Application materials must be submitted, in full, by the following deadlines for consideration of acceptance for fall and spring terms:

Fall Admission: May 1

Spring Admission: November 1

Degree Requirements

The doctoral program requires 63 graduate units beyond the master's degree. Course work in the program includes 15 units in the pro-

gram core, 9 units in research methodology, 18 units of specialization elective course work, 9 units of doctoral seminar and 12 units of dissertation research.

After completing all course work and prior to beginning the dissertation, students must pass a comprehensive written exam and/or submit a portfolio based upon the core courses and one specialization area. Upon passing/approval, students will be admitted to the dissertation sequence.

Required Courses (15 units)

ISTC 700	Assessment in Instructional Technology (3)
ISTC 707	Learning Environments in a Digital Age (3)
ISTC 709	Legal and Ethical Issues (3)
ISTC 711	Innovation, Change and Organizational Structures (3)
ISTC 741	Foundations of Research in Instructional Technology (3)

Research Methodology Courses (9 units)

EDUC 715	Statistical Principles of Research Design and Analysis (3)
EDUC 765	Qualitative Methods (3)
EDUC xxx	Advanced Qualitative Methods (3)
EDUC 790	Advanced Measurements and Statistics in Education (3)

Seminars Internship and Dissertation Research (9 units)

ISTC 780	Investigating and Evaluating Research in Instructional Technology (6)
ISTC 797	Instructional Technology Internship (3)
ISTC 998	Dissertation Research (12)
ISTC 999	Dissertation Continuum (1)

Specialization/Elective Courses (18 units)

Selection of elective courses must be made with the advice and approval of the student's doctoral adviser. All elective units may be in instructional technology. With prior permis-

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sion, 12 units may be taken outside the College of Education. All elective course work must be at the 600 level or higher.

With approval, courses completed as part of a Towson University C.A.S. program may be applied as part of the specialization. Examples of suitable electives include:

- ISTC 717 Distance Education in Theory and Practice (3)
- ISTC 767 Advanced Theory and Instructional Design (3)
- ISTC 705 Advanced Web Applications in Education (3)
- ISTC 718 Critical Perspectives in Instructional Technology (3)
- ISTC xxx Integrating Digital Resources into the Curriculum (3)

INSTRUCTIONAL TECHNOLOGY

Degree: Master of Science

Program Directors: Jeff Kenton and David Robinson

410-704-4226 and 410-704-6301

jkenton@towson.edu and

derobins@towson.edu

The master's degree program in Instructional Technology in the College of Education is an applied professional program that helps to educate leaders in three technology fields: training and development, school library media, and educational computing and media.

The Instructional Technology graduate program is intended for both current professionals in the fields of media, design, computing, education and libraries as well as those who are seeking advanced degrees and an upgrade in their skills and knowledge base related to technology. The program is hands-on and practical with a considerable focus of most courses being inventive and authentic learning projects.

Students select one of three options. The first, Instructional Design and Development, offers a flexible program of study designed to develop competencies in instructional design and media-related competencies for those who wish to work in training or instructional settings in business, industry, government, the military or medical education. The second,

School Library Media, meets the Maryland State Department of Education requirements for the Media Generalist Certification and is designed for students who wish to serve as directors of school library centers. The third, Educational Technology, is designed for those who wish to integrate technology into classroom teaching or to coordinate the planning and integration of educational technologies at the school, district or state level.

The program is most often completed by students on a part-time basis, although full-time study is encouraged. A majority of the graduate students in the Instructional Technology program are full-time working professionals who take classes in the late afternoon or early evening. Professionals seeking to advance or change careers comprise a substantial portion of the student population in the Instructional Technology program.

These include students who intend to become school library media specialists, industry training specialists and leaders in educational computing and technology.

Admission Requirements

- A minimum undergraduate GPA of 3.00 for full admission, and 2.75 for conditional admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
- Technological literacy including the ability to use application programs is a necessary background requirement for Concentrations I, II and III.

Concentration I— Instructional Design and Development Prerequisites: None.

Degree Requirements:

Plan A: Master of Science with Thesis (minimum 36 units)

Level I: Core Sequence (12 units)

- EDUC 605 Research and Information Technology (3)

- ISTC 541 Foundations of Instructional Technology (3)
 ISTC 663 Applied Psychology of Learning (3)
 ISTC 667 Instructional Design and Development (3)

Level II: Elective Sequence (6 units)

HRD Elective is required (3)
 Individually selected elective at the 600-700 level (3)

Level III: Advanced Sequence (18 units)

- ISTC 655 Multimedia Design (3)
 ISTC 685 Research in Instructional Technology (3)
 ISTC 767 Advanced Theory and Instructional Design (3)
 ISTC 787 Instructional Technology Capstone (3)
 ISTC 897 Master's Thesis in Instructional Technology (6)

Plan B: Master of Science without Thesis (minimum 36 units)

Except for thesis, the required courses are identical to Plan A. In Plan B, the student's Level II Elective Sequence contains 12 units instead of 6 units.

Level II: Elective Sequence (12 units)

HRD Elective is required (3)
 Individually selected elective units at the 600-700 level (9)

Concentration II – School Library Media

Prerequisites: Completion of the following courses or their equivalents:

- EDUC 401 Foundations and History of Education
 ISTC 301/501 Integrating Instructional Technology
 PSYC 201 Learning Theory, Student Development, and Strategies for Identification of Student with Diverse Learning Needs

- SPED 301 Inclusion of Special Needs Student Populations

Degree Requirements:

Plan A: Master of Science with Thesis (minimum 36 units)

Level I (9 units)

- ISTC 653 The Organization of Knowledge (3)
 ISTC 615 Collection Development (3)
 ISTC 667 Instructional Design and Development (3)

Level II (15 units)

- EDUC 717 Children's Literature and Materials for Teaching Reading (3)
 ISTC 541 Foundations of Instructional Technology (3)
 ISTC 651 Information Literacy and Access (3)
 ISTC 702 Educational Leadership and Technology (3)
 SCED 518 Young Adult Literature (3)

Level III (12 units)

- ISTC 601 Library Media Administration (3)
 ISTC 789 Practicum and Portfolio in Library Media (3 6)
 ISTC 897 Master's Thesis in Instructional Technology (6)

Plan B: Master of Science without Thesis (minimum 36 units)

Identical to plan A, except for the deletion of ISTC 897 Master's Thesis in Instructional Technology (6) and additions of:

- ISTC 685 Research in Instructional Technology (3)

Individually selected elective units at the 600-700 level (3)

Concentration III— Educational Technology

Prerequisite: Maryland State Department of Education certification as a classroom teacher, administrator or specialist.

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Degree Requirements: (Minimum 36 units)

Level I: Core Sequence (12 units)

ISTC 541	Foundations of Instructional Technology (3)
EDUC 605	Research and Information Technology (3)
ISTC 663	Applied Psychology of Learning (3)
ISTC 667	Instructional Design and Development (3)

Level II: Elective Sequence (9 units)

Individually selected elective units at the 600-700 level (9)

Level III: Advanced Sequence (15 units)

ISTC 6xx	Advanced Technology Integration (3)
ISTC 717	Distance Education in Theory and Practice (3)
ISTC 685	Research in Instructional Technology (3)
ISTC 702	Educational Leadership and Technology (3)
ISTC 787	Instructional Technology Capstone (3)

READING

Degree: Master of Education

Program Directors: Barbara Laster and

Steve Mogge

410-704-2556

blaster@towson.edu; smogge@towson.edu

The Master of Education in Reading program is designed to prepare reading teachers or reading specialists, primarily for K-12 education, but also for community colleges, industry, adult education programs, commercial education centers and private practice. The 36-unit program is highly structured with nine required courses and three electives (two of which must be in the area of literacy). It is developmental in design. Students grow in

both their knowledge and application as they proceed through the program.

The Graduate Reading Program at Towson University does not subscribe to a particular position on reading. It closely reflects the broad, comprehensive knowledge and pedagogical skills and strategies outlined in the *2003 Standards for Reading Professionals* developed by the International Reading Association.

The goals of the Master of Education in Reading program are to prepare reading teachers or reading specialists who have a dynamic understanding of the reading process, a wide array of resources for enhancing literacy for all learners, the competencies to coach others (classroom teachers, paraprofessionals, parents, etc), and who have the competencies to advocate for the best literacy environments.

The program is designed to prepare the degree candidate to:

- Provide specialized literacy instruction and assessment, in cooperation with other professionals, to students at all levels
- Provide literacy services individually or in groups
- Communicate with colleagues, parents and the community about literacy issues, including conducting workshops on literacy topics
- Read and interpret literacy research.
- Continue to grow professionally by reading professional journals and by participating in reading conferences and workshops
- Master essential dispositions of educators (caring for all students, collaboration with stakeholders, commitment to professional practice)

The Master of Education in Reading program is grounded in five philosophical beliefs:

- Literacy learning involves not only reading, but also writing, listening, speaking and viewing.
- Literacy instruction must be research-based, and therefore requires reading specialists to be competent in interpreting and applying research findings.
- Literacy instruction must be responsive to the individual differences among learners.

- Literacy instruction must be inclusive and celebrate the diversity of learners.
- Literacy instruction and assessment must be closely connected so that instruction is developed, monitored and modified using multiple sources of assessment data.

The Master of Education in Reading program can be completed on a full-or part-time basis. Most courses are offered in the early evening (e.g. 4:20-6:50 p.m.) one night per week. All nine required courses on-campus are offered in both fall and spring terms and many are offered during the summer.

Admission Requirements

Candidates for admission must submit an application essay that addresses the applicant's experience and/or approach to caring for all students, collaboration with other professionals and commitment to professional practice. Candidates for admission to the Master of Education in Reading program must also meet the criteria for admission to all graduate programs at the university: a 3.00 GPA for the last 60 credits of undergraduate and post-baccalaureate study. Students can be admitted conditionally to the Master of Education in Reading program with a 2.75 GPA. Those admitted conditionally must receive an A or B in the first three REED courses they take in the program. Candidates who completed their bachelor's degree more than 10 years ago with less than a 3.00 can be admitted to the program by documenting five years of successful education-related work experience.

Candidates in the M.Ed. in Reading program are not required to have or be eligible for a teaching certificate. This is to allow individuals interested in careers that do not require a state teaching certification (e.g., community college developmental reading) to pursue the degree. It is, however, important to understand that completing the M.Ed. in Reading does not carry automatic state certification. Maryland State Certification for Reading Specialist has three requirements:

- Eligibility for teacher certification in early childhood, elementary, secondary or special education

- Three years of classroom teaching experience
- M.Ed. in Reading from an approved program (e.g. Towson University's) or a master's equivalency

To be admitted to the program, send all official transcripts to the Graduate School and fill out the online graduate application.

Required Courses (27 units)

REED 601	Reading Theory and Practice (3)
REED 609	Reading Assessment (3)
REED 621	Reading Disabilities (3)
REED 663	Strategic Use of Materials (3)
REED 665	Teaching Reading and Writing in the Content Areas K-12 (3)
REED 626*	Clinic Internship in Reading (3)
REED 745	Professional Development in Reading (3)
REED 726*	Advanced Internship in Reading (3)
REED 729	Seminar in Reading (3)

*There are two required internships in the program, REED 626 Clinic Internship in Reading and REED 726 Advanced Clinic Internship in Reading. They are both 3-unit experiences that require 45 contact hours with clients, parents and fellow clinicians each term; they are scheduled for 4:30 P.M. during the academic school year. In addition to working with one client, the students enrolled in the advanced internship are responsible for providing parent workshops on a variety of topics as well as serving as coaches. If a student withdraws from REED 626 or REED 726 without consulting with the instructor, she/he must petition the director of the program in order to re-enroll in the course. All REED graduate students are responsible for understanding professional expectations. In addition to fulfilling all academic requirements, successful completion requires demonstrated professional behavior including, but not limited to, punctuality, attendance, professional attire, discretion, respect for confidentiality, effective and appropriate communication with students, parents, and colleagues and acceptance of diversity.

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Electives (9 units)

There is considerable flexibility in elective course selection in order to meet the unique program needs of individual candidates. Two of the three electives must be reading/literacy courses. Please check with an assigned adviser for guidance. Suggested courses include (but are not limited to) the following:

ECED 607	Learner Diversity and Inclusion in Early Childhood Education (3)
ECED 609	Growth and Development of Young Children (3)
EDUC 605	Research and Information Technology (3)
EDUC 632	Word Study for Literacy Learning (3)
EDUC 660	Teaching in a Multicultural/Multiethnic Society (3)
EDUC 717	Children's Literature and Other Materials (3)
ISTC 501	Utilization of Instructional Media (3)
ISTC 605	Web-based Instruction in Education
PSYC 611	Developmental Psychology (3)
REED 628	Guided Reading (3)
REED 632	Word Study for Literacy Learning (3)
REED 660	Integrating Technology in Literacy Instruction (3)
REED 670	Special Topics in Reading Education (3-6)
REED 695	Individualized Study in Reading Education (3-6)
REED 710	Multicultural Literature for Children and Adolescents (3)
REED 712	Critical Conversations in Early Literacy
REED xxx	Linguistic for Educators
REED 740	Grant Writing In Education (3)
REED 751	Language, Literacy & Culture
REED 752	Literacy Theory & Research (3)
REED/	
EDU 650	Second Language Literacy (3)
REED/	

EDU 651	Intruction and Assessment for Second Language Learners
SCED 518	Young Adult Literature (3)
SCED 605	Theory, Research and Practice in Teaching Composition (6) [Maryland Writing Project Summer Institute]
SCED 611	Inclusion/Integration Strategies for Special Needs Adolescents and Adults (3)
SPED 513	Assistive Technology for Students with Disabilities (3)
SPED 541	Curriculum/Methods for Instruction for Students with Disabilities (3)
SPED 637	Mainstreaming for the Classroom Teacher (3)

Program Exit Requirements

Students must earn the grade of A or B in REED 726 and REED 729. Each course may be repeated once, if necessary. Students not earning an A or B in each course are dismissed from the program.

Throughout the program, students collect key assignments, along with the grade sheets, which become artifacts in their Program Portfolio. At the conclusion of the REED 729 course, students are required to present their Program Portfolio to faculty and to new students in the program. They are also required to submit a Portfolio Reflective Essay.

READING EDUCATION (C.A.S.)

Certificate: Certificate of Advanced Study
Program Directors: Barbara Laster and Steve Mogge

410-704-2556
blaster@towson.edu
smogge@towson.edu

Graduate Reading Programs Information
Line: 410-704-5775

The Certificate of Advanced Study (C.A.S.) in Reading Education is a post-master's program that reflects the university and college missions and helps develop advanced knowledge and

leadership skills necessary for meeting the challenges of leading, redesigning and restructuring literacy education across the P-16 continuum.

The C.A.S. in Reading is an outcomes-based program designed to meet the standards outlined by the International Reading Association (IRA) for administrators who recognize and support reading professionals as they plan, implement and evaluate reading instruction. Such reading professionals administer literacy, bilingual, compensatory and ESL programs in schools or other institutional settings. They direct the organization, management and assessment of school, district or institutional literacy programs. Academic preparation for reading coordinators includes additional course work in reading and course work in professional development, grant writing, program administration and evaluation, and school law.

In this 30-unit program, students may complete four of six required courses to fulfill the Administrator I Certification requirements by completing the C.A.S. in Reading. Furthermore, many of the courses in this program can be counted toward the Ed.D. in Instructional Technology.

Admission Requirements

A master's degree in Reading Education or related field from a nationally accredited institution.

Send the following admission materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252:

- Completed Graduate Application
- Three letters of professional reference, one of which must be job-related
- Professional portfolio, including:
 1. student assessment report
 2. professional writing sample
 3. professional development materials

Required Courses (24 units)

EDUC 740	Data-based Decision-Making for Curriculum and Instruction (3)
ILPD 603	School Law (3)
ILPD 716	Administration of the Schools (3)

REED 751	Language, Literacy and Culture (3)
REED 752	Literacy Theory and Research (3)
REED 660	Integrating Technology in Literacy Instruction (3)
REED 740	Grant Writing for Education (3)
REED 745	Professional Development in Reading Education (3)

Electives (6 units)

There is considerable flexibility in elective course selection in order to meet the needs of individual candidates. Suggested courses include the following:

EDUC 611	Supervision of Student Teaching (3)
EDUC 615	Applied Educational Statistics (3)
EDUC 761	Research in Education (3)
ELED 665	Curriculum Theory and Development (3)
ILPD 781	Seminar in Supervision (3)
ISTC 605	Web-Based Instruction in Education (3)
ISTC 663	Applied Psychology of Learning (3)
ISTC 667	Instructional Development (3)
ISTC 687	Computer-Based Instruction (3)
ISTC 700	Assessment in Instructional Technology (3)
ISTC 702	Educational Leadership and Technology (3)
REED 670	Linguistics for Educators (3)
REED 670	Assessment and Instruction for English Language Learners (3)
REED 710	Multicultural Literature for Children and Adolescents (3)
REED 730	Second Language Literacy (3)

Exit Requirements

Students collect key artifacts from each of their required courses. During their final course, students are required to submit their portfolio to the program director.

SECONDARY EDUCATION

Degree: Master of Education
 Program Director: Todd Kenreich
 410-704-5897
 scedmed@towson.edu

The Master of Education in Secondary Education is an advanced program of study that provides opportunities for middle and high school teachers to deepen their understandings of research-based practices in teaching subject matter to diverse learners. The program is designed for teachers seeking advanced professional certification from the Maryland State Department of Education.

The program goals, based upon the core propositions endorsed by the National Board for Professional Teaching Standards, are as follows:

- To develop advanced competencies in curriculum development, assessment, evaluation, and instructional design
- To develop an understanding of the diverse nature of learners in society
- To develop capacity for assuming teacher leadership roles
- To use technology to enhance learning
- To understand and use appropriate assessment and evaluation (assessment literacy)
- To engage in scholarly activities
- To think and reflect critically about the educational process and professional practice (Essential Dispositions for Educators)

The degree can be completed through part-time study. The majority of secondary Master of Education candidates are full-time teachers in area middle and high schools. Courses are offered in the late afternoons, evenings, weekends and summers.

Admission Requirements

- Maryland teaching certification or permission of the program director.
- A 3.00 GPA for full admission; 2.75 GPA for conditional admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.

NOTE: Applicants certified in another area (e.g., elementary education) but not certified as a secondary teacher should be aware that completion of the master's degree is not accompanied by automatic state certification in grades 6-12.

Degree Requirements

- Maintain a 3.00 GPA (no more than two courses of C grade are allowed).
- Complete no more than three 500-level courses, including transfer courses.
- Complete no more than 12 units of special format courses (e.g. independent study).
- Complete program of study within seven years, including transfer courses.
- Complete the capstone course SCED 781 Integrated Professional Practice Seminar with a grade of A or B (the course may be repeated only once) or successfully complete SCED 897 Master's Thesis.

NOTE: Graduate students enrolled in the Master of Education in Secondary Education program may transfer a maximum of 15 units of graduate-level course work, subject to the approval of the program director.

Students choose one of the following program of study options: Master of Education with Seminar or Master of Education with Thesis.

Master of Education with Seminar (33 units)

Required Courses (18 units)

- | | |
|----------|---|
| EDUC 601 | Concepts and Issues in Education (3) |
| EDUC 605 | Research and Information Technology (to be completed within first 9 units of course work) (3) |
| EDUC 761 | Research in Education (3) |
| SCED 647 | Advanced Processes of Teaching and Learning (3) |
| SCED 741 | Curriculum Theory and Development (3) |

SCED 781 Integrated Professional Practice Seminar (to be taken in the last 6 units of course work) (3)

SCED 649 Teaching Gifted Students (3)
SPED 601 Curriculum and Methods of Instruction for Secondary Transition (3)

Electives (15 units)

At least one course must be selected from the following, or by obtaining approval from the program director:

EDUC 660 Teaching in a Multicultural Society (3)
SCED 649 Teaching Gifted Students (3)
SPED 601 Curriculum and Methods of Instruction for Secondary Transition (3)

All electives are planned in terms of the needs and goals of the individual student and must be approved by the program director.

NOTE: Earn a Graduate Certificate in Family-Professional Collaboration with your elective units. See the Family-Professional Collaboration heading in the College of Liberal Arts section for more information.

Master of Education with Thesis (33 units)

Required Courses (21 units)

EDUC 601 Concepts and Issues in Education (3)
EDUC 605 Research and Information Technology (to be completed within first 9 units of course work) (3)
EDUC 761 Research in Education (3)
SCED 647 Advanced Processes of Teaching and Learning (3)
SCED 741 Curriculum Theory and Development (3)
SCED 897 Master's Thesis in Secondary Education (6)

Electives (12 units)

At least one course must be selected from the following, or by obtaining approval from the program director:

EDUC 660 Teaching in a Multicultural Society (3)

All electives are planned in terms of the needs and goals of the individual student and must be approved by the program director.

NOTE: Earn a Graduate Certificate in Family-Professional Collaboration with your elective units. See the Family-Professional Collaboration heading in the College of Liberal Arts section for more information.

SPECIAL EDUCATION (M.ED.)

Degree: Master of Education

Program Director: Lori Jackman

410-704-3122

ljackman@towson.edu

The Master of Education in Special Education is an applied professional program designed to meet the critical need for special educators.

The degree program is for professionally certified teachers seeking an advanced degree and the professional skills needed to meet the educational needs of students with disabilities.

The Special Education Certification program is an initial certification/endorsement. It provides the skill development and knowledge base established by the Council for Exceptional Children's Standards for Beginning Special Educators and will meet the requirements for the Maryland State Department of Education's Special Education Generic Certification at either infant/primary (birth-grade 3), elementary/middle (grades 1-8), or secondary/adult (grades 6-12+) levels. The degree program emphasizes the following themes: collaboration and consultation, translation of effective research-based instructional and management strategies into practice, and cross-categorical, rather than disability-specific, approaches.

A majority of the graduate students in the Special Education program are full-time working professionals, taking classes in the afternoon or evenings.

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General Admission Requirements

- A baccalaureate degree from an accredited college or university.
- An overall minimum GPA of 3.00 for full admission to the program, and a 2.75 GPA for conditional admission, based on the last 60 units of total undergraduate and post-baccalaureate study.
- Current professional teaching certificate
- Passing scores (as determined by MSDE) on the PRAXIS I Examination or its equivalent.

NOTE: A professional teaching certificate is a prerequisite for admission to the program. Prior to enrolling in any course work, non-certified applicants should contact the M.A.T. program office at 410-704-5388 to obtain information about earning a professional teaching certificate. A special education track is available.

International students must have passing TOFEL scores and have completed the PRAXIS I.

Degree Requirements

Special Education: Certification Track (36 units)

Initial Courses (9 units)

- | | |
|----------|---|
| SPED 637 | Inclusion for the Classroom Teacher (3) |
| SPED 640 | Characteristics of Diverse Learners (3) |
| Elective | Related graduate course approved by adviser |

Core Courses (12 units)

- | | |
|----------|---|
| EDUC 605 | Research and Information Technology (3) |
| SPED 525 | Formal Tests and Measurements for Students with Disabilities K-12 (3) |
| SPED 603 | Informal Tests and Measurements for Students with Disabilities K-12 (3) |
| SPED 605 | Working with Families of Students with Disabilities (3) |

Curriculum/Methods Courses (9 units)

Select three courses:

- | | |
|----------|--|
| SPED 527 | Curriculum/Methods of Social, Emotional and Motor Development for Students with Disabilities K-12 (3) – EC/EL or |
| SPED 601 | Curriculum/Methods of Instruction for Secondary Transition (3) – SC |
| SPED 607 | Curriculum/Methods of Classroom Management for Students with Disabilities (3) |
| SPED 641 | Curriculum/Methods of Instruction K-12 (3) |

Internship and Exit Requirements (6 units)

- | | |
|----------|---|
| SPED 741 | Internship (6) Portfolio Development and Review |
|----------|---|

Passing score on Praxis II: Special Education Specialty is required for Maryland certification, but not for graduation.

Maryland State Department of Education teacher recertification requirements are the student's responsibility and are not a requirement of this program.

The development and presentation of a portfolio that demonstrates and aligns with professional association accreditation standards will take the place of the master's thesis.

Special Education: Teacher as Leader Track (36-42 units)

This program is currently being revised. Students interested are encouraged to contact the Department of Special Education.

TEACHING (M.A.T.)

Degree: Master of Arts in Teaching

Program Manager: Rachel Carter

410-704-5388

rcarter@towson.edu

www.towson.edu/coe/mat

Program Director and

Secondary Education Coordinator

Judy Reber

410-704-4935

jreber@towson.edu

Elementary Education Coordinator

Robert Blake

410-704-6299

rblake@towson.edu

Early Childhood Education Coordinator

Edyth J. Wheeler

410-704-2460

ejwheeler@towson.edu

Special Education Coordinator

Rosemary Rappa

410-704-3835

rrappa@towson.edu

Xueling Lu

Program Manager: Chinese Language MAT

410-704-5388

xlu@towson.edu

The Master of Arts in Teaching (M.A.T.) is designed for those without formal training in the field of education who wish to enter the teaching profession. It is well suited to recent graduates and to those seeking to change careers. A graduate of this program will meet state teacher certification requirements* within the General Education Tracks of Early Childhood, Elementary, or Secondary Education. A student may also choose the Special Education Track in Early Childhood, Elementary, or Secondary Education. General Education students have the option of completing their program as a One-Year student. Please note that the Special Education Track is not offered as a One-Year option.

The M.A.T. program allows students to design a course load to fit their schedule (generally 1-3 courses per term). Students must be able to participate in a minimum of eight hours of daytime field experience per course during the fall and spring terms, complete substantial daytime observation/participation hours (one day per week) along with Internship I, and become full-time for Internship II in the 18-week extended final term. The One-Year option requires a full-time commitment to courses and field placement; this option will encompass a summer term, fall term and an extended spring term.

Field placements and internships are completed in local public professional development schools in partnership with the university. All placements must be completed in subject areas and grade levels appropriate to the declared certification track in the M.A.T. Understanding of assessment literacy, demonstrated evidence of pre-K-12 student learning, and development of essential dispositions for educators are integrated throughout the program and assessed in the final term. The development and presentation of a portfolio that demonstrates attainment of national performance standards will take the place of a master's thesis. Guidance in portfolio development is an integral part of the program.

The Maryland State Department of Education (MSDE) requires that all applicants for state teaching licensure successfully complete the PRAXIS II exam. Most students take PRAXIS II during their final term of program course work.

Admission Requirements

- A baccalaureate degree from an accredited institution.
- General Education Track Secondary certification requires a minimum of 36 units in a content major. Special Education Track Secondary certification requires a minimum of 21 units in a content major. Secondary content majors include: English, math, biology, chemistry, physics, earth-space science, social science or one of the modern languages (French, German, Spanish, or

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Chinese). Contact the M.A.T. program office for evaluation of transcripts to determine any needed content area course work; this may be done prior to application. Content major requirements are aligned with professional association accreditation standards.

- Chinese Language Teaching (Secondary) requires students to be native speakers of Chinese who hold a bachelor's degree in an area with a 3.0 or greater GPA from an accredited institute in China (including Taiwan) OR holders of a bachelor's degree in Chinese Language with a 3.0 or greater GPA or 30 semester hours of Chinese Language course work from an accredited institution in the U.S. To be admitted to the program, all applicants must receive passing scores on the PRAXIS I Exam: Reading, Writing and Mathematics, and meet the state qualifying score of "Intermediate High" on the American Council on the Teaching of Foreign Languages (ACTFL) Mandarin Chinese Oral Proficiency Interview and Written Proficiency Test.
- Early Childhood or Elementary certification for both General Education Track and Special Education Track requires a well-rounded liberal arts background including specific courses in English, math, science and the social sciences. In addition, Special Education Track Early Childhood and Elementary certification students must take two graduate-level reading courses as prerequisites to the program. They are: ECED 618 Thinking Through the Processes and Acquisition of Literacy or ELED 611 Principles and Processes of Language and Literacy and EDUC 717 Children's Literature and Other Materials for Teaching Reading. Contact the M.A.T. program office for evaluation of transcripts to determine any needed content area course work. This may be done prior to application.
- A 3.00 GPA is required for full admission. A GPA between 2.75 and 2.99 may qualify the applicant for conditional admission. All GPA calculations for admission are based upon the last 60 units of undergraduate and post-baccalaureate study.

- An interview with the program director may be required.

Send the following admission materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252:

- Passing scores (as determined by MSDE) on the PRAXIS I Exam (reading, writing, and mathematics) must be submitted for acceptance to the program. Send copy of score report directly to the Graduate School office.
- A brief (1-2 page) admission essay in which the applicant discusses reasons for entering the teaching profession
- Two narrative letters of reference
- A curriculum vita or resume

Application and admission credentials may be submitted year round. Application and all admission credentials must be submitted by March 15 for the One-Year option; late applications considered if space is available.

PLEASE NOTE: The Teacher Education Executive Board (TEEB) reserves the right for each department/program to refuse, deny or revoke the application for admission to professional education programs or continuation in professional education programs of any student whose observed conduct is deemed incongruent with established guidelines of professional behavior. As a professional discipline, education is "vested by the public with a trust and responsibility requiring the highest ideals of professional service."

All teacher education students agree to accept "the responsibility to adhere to the highest ethical standards of professional behavior." Placing the importance of professional behavior and duties above one's own convenience is the cornerstone of professionalism.

All teacher education students are responsible for understanding department and program-specific professional expectations. In addition to fulfilling all academic requirements, successful completion of all field experiences requires demonstrated professional behavior including, but not limited to, punctu-

ality, attendance, professional attire, discretion, respect for confidentiality, effective and appropriate communication with University and school-based students and personnel, and acceptance of diversity.

All teacher education students must exhibit behavior that is consistent with the University's Code of Conduct and established professional practice in educational and clinical settings. Successful completion of all field experiences is a requirement for continuation in the education program.

PLEASE NOTE: In order to successfully complete the MAT Program and graduate, students must maintain a 3.00 GPA in the graduate program, earn no more than two grades of "C" in MAT course work, complete all content prerequisites with grades of "B" or greater prior to entering EDUC 798, receive a grade of "C" or greater in EDUC 797 prior to entering EDUC 798, and earn a grade of "S" in EDUC 798; additionally, all students must present a Summative Portfolio with scores of "3" or higher for all 10 INTASC Principles as a program exit/graduation requirement.

Degree Requirements for General Education Tracks

The M.A.T. program in the Early Childhood or Elementary General Education Tracks requires 42 units of course work. The M.A.T. program in the Secondary General Education Track requires 40 units of course work to include 37 graduate units and 3 undergraduate units in secondary methods. The required courses are:

Core Curriculum Courses for General Education Track (Excluding Chinese Language (MAT))

(required for all three certification levels)

- EDUC 730 Principles of Learning, Development and Diversity (3)
- EDUC 731 Curriculum and Assessment (3)
- SPED 637 Inclusion for the Classroom Teacher (3)
- EDUC 734 Teacher as Researcher (3)
- EDUC 797 Internship I with Seminar (6)**

**Please note that a \$200 lab fee is attached to this course. Students must complete a minimum of one day each week in a Professional Development School (PDS) as an internship requirement for this course. However, please note that One-Year option students will spend a minimum of two days each week in a Professional Development School (PDS) as an internship requirement for this course. Taken concurrently with EDUC 734 in the term prior to Internship II. EDUC 797 must be completed successfully in order to enter EDUC 798.

EDUC 798 Internship II with Seminar (6)***

***Please note that a \$500 lab fee is attached to this course. All students complete 18 weeks of full-time, five-day/week internship in a Professional Development School (PDS). Completed in the final term. A grade of "S" must be earned to successfully complete the program and graduate.

Early Childhood and Elementary General Education Track Certification:

- ECED 618/ Processes and Acquisition of
- ELED 611 Literacy (3)
- ECED/ Literacy Assessment (3)

- ELED 621
- ECED 608/ Social Studies Methods and
- ELED 685 Integrated Curriculum (3)
- EDUC 717 Children's Literature and Other Materials to Teach Reading (3)
- EDUC 787 Instructional Practices in the Development of Literacy (3)
- MATH 621 Seminar in Teaching Elementary and Middle School Mathematics (3)

Secondary General Education Track Certification:

- SCED 560 Using Reading and Writing in the Secondary School (4)
- SCED 561 Teaching Reading in the Secondary Content Areas (3)
- ISTC 501 Integrating Instructional Technology (3)*

*Please note that a lab fee is attached to this course.

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- EDUC 735 Proseminar: Problems and Issues (3)
SCED XXX Secondary Education Methods Course (3)

To see a detailed list of the degree requirements for the Chinese Language Teaching Certification Track, please visit our Web site at: <http://www.towson.edu/coe/mat/>

Degree Requirements for Special Education Tracks

The M.A.T. program in the Early Childhood and Elementary/Middle Special Education Tracks requires 39 units of course work. The M.A.T. program in the Secondary Special Education Track requires 40 units of course work.

Core Curriculum Courses for Special Education Track

(required for all three certification levels)

- EDUC 730 Principles of Learning, Development and Diversity (3)
SPED 525 Formal Tests & Measurements for Students with Disabilities K-12 (3)
SPED 603 Informal Tests & Measurements for Students with Disabilities K-12 (3)
SPED 605 Working with Families of Students with Disabilities (3)
SPED 607 Curriculum/Methods of Classroom Management for Students with Disabilities K-12 (3)
SPED 637 Inclusion for the Classroom Teacher (3)
SPED 641 Curriculum/Methods of Instruction for Students with Disabilities K-12 (3)
EDUC 797 Internship I with Seminar (3)**

**Please note that a \$200 lab fee is attached to this course. Students must complete one day each week of field experience in a Professional Development School (PDS) as an internship requirement for this course. EDUC 797 must be successfully completed in order to enter EDUC 798.

- EDUC 798 Internship II with Seminar (6)***

***Please note that a \$500 lab fee is attached to this course. All students complete 18 weeks of full-time, five-day/week internship in a public school setting. Completed in the final term. A grade of "S" must be earned to successfully complete the program and graduate.

Early Childhood and Elementary Special Education Track Certification:

- ECED 623 The Art of Reading & Writing Instruction in the Primary Grades and Kindergarten (3)

or

- EDUC 787 Instructional Practices in the Development of Literacy (3)

and

- SPED 646 Using Technology to Differentiate Instruction (3)

Also

- ECED 621 Assessment of Reading and Writing in ECED (3)

or

- ELED 621 Literacy Assessment in the ELED Classroom (3)

Secondary Special Education Track Certification:

- SCED 560 Using Reading and Writing in the Secondary School (4)
SCED 561 Teaching Reading in the Secondary Content Areas (3)
SPED 601 Curriculum Methods of Instruction for Secondary Transition (3)

THE COLLEGE OF FINE ARTS AND COMMUNICATION

The College of Fine Arts and Communication (COFAC) provides graduate education and training to a wide range of fields including art education, studio art, communications management, music education, music performance and theatre. Programs leading to the Master of Fine Arts, Master of Arts or Master of Sciences degrees offer students training and practical experience that enable them to enhance their creative and analytical abilities to advance their careers or enter doctoral programs. The college offers two new post-baccalaureate certificate programs: the Arts Integration Institute Certificate and the online Interactive Media Design Certificate.

Graduate classes in COFAC are purposefully small allowing for extensive faculty engagement and student mentoring. To enhance their studies, students and faculty present and perform in several facilities on the Towson University campus. In fall 2005, the renovation and addition of the Center for the Arts, the home of the departments of Art + Design, Art History, Art Education, Dance, Music and Theatre Arts was completed. The building project doubled the size of the facilities available to students, adding a music recital hall, the Holtzman MFA art gallery, an intimate studio theatre and four state-of-the-art dance studios, including a dance-theatre space. The Center for the Arts also houses the Asian Arts & Culture Center gallery and garden and the Center for the Arts gallery. Additional spaces that assist students and faculty in activities supporting curricular offerings include Van Bokkelen Hall and the recently renovated Media Center, housing journalism laboratories, the debate and speech facility, XTRS-AM, radio-television-film laboratories, television station WMJF-TV, and Stephens Hall Theatre, which provides performance space for dance, opera and musicals.

Recognized as a fine arts center for Maryland, the college continues to pursue its mission to enhance communication and the fine and performing arts and contribute to the

cultural life of Towson and Greater Baltimore through an annual program that includes more than 90 music performances; at least 26 student films; 17 dance events; numerous debates, lectures and workshops; no fewer than four main-stage plays; a daily campus television show; and eight to 10 art exhibitions.

The college also sponsors international exchange programs with schools in China, Germany, Ireland, Korea, Russia, Italy and the United Kingdom. For more information, please visit our Web site.

Christopher H. Spicer, Dean

Trudy Cobb Dennard, Associate Dean
James Hunnicutt, Senior Assistant to the Dean/Operations

COLLEGE OFFICE
Center for the Arts 3001
410-704-3288
Fax: 410-704-6026
www.towson.edu/cofac

Master's Degree Programs

Art Education
Art, Studio
Communication Management
Music Education
Music Performance/Composition Theatre

Post-Baccalaureate Certificate Programs

Arts Integration Institute
Interactive Media Design
Music Education – Dalcroze, Orff and Kodaly
Strategic Public Relations and Integrated Communication

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ART EDUCATION

Degree: Master of Education

Program Director: Ray Martens

410-704-3819

rmartens@towson.edu

The degree program is designed to provide advanced training in art education, to promote the professional growth of art educators through individual research, and to increase the art educator's skill and knowledge in art production, art history, aesthetics and art criticism.

Admission Requirements

- An undergraduate degree in art education and/or certification as a public school art teacher. Applicant must show evidence of approved undergraduate art education courses taken at the university level.
- A minimum GPA of 3.00 for full admission or 2.50 for conditional admission. All GPA calculations for admission are based upon the last 60 units of undergraduate and post-baccalaureate study.

Degree Requirements

The 33-unit program consists of 15 units of required course work and 18 units of electives. The required courses are taken in a specified sequence culminating in the writing of a Master's Project similar in scope to a traditional thesis.

Required Courses (15 units)

- EDUC 601 Issues and Concepts in Education (3) (Prerequisite: graduate standing)
- EDUC 605 Research & Information Technology (3)
- ARED 797 Seminar in Art Education (3) (Prerequisite: EDUC 601)
- ARED 880 Art Education Project I (3) (Prerequisite: ARED 797, EDUC 605)
- ARED 881 Art Education Project II (3) (Prerequisite: ARED 880)

Elective Tracks (18 units)

In an effort to provide for diverse interests and ensure flexibility, the program offers three elective tracks. Students select one track from among the following:

1. Broad-based Studio Track

This track is designed to enhance K-12 art teaching. Students select a variety of courses drawn from studio, art history and art education areas.

2. In-depth Studio Track

This track is designed for those concentrating their electives in a studio area.

3. Historical Track

This track is designed for those interested in pursuing cultural/historical aspects of art and art education. Students concentrate electives in art history.

Courses at the 600 to 800 level should ordinarily be selected, however, a maximum of 9 units in 500-level courses may be taken with the approval of the student's adviser. Six units may be taken in departments other than art with prior approval.

ART, STUDIO

Degree: Master of Fine Arts

Director: Tonia Matthews

410-704-2803

tmatthews@towson.edu

The Master of Fine Arts degree at Towson University is designed to meet the needs of those who wish to pursue the study of art, either for a career as an artist or as a college-level instructor. The program consists of professional study in painting, photography, digital media, graphic design, illustration, sculpture, printmaking, ceramics, metal-smithing and jewelry and interrelated media. M.F.A. students are encouraged to attend full time, but may attend part time for part or all of their degree work. The M.F.A. student enrolled full time also maintains a residency in the Department of Art, working in an assigned studio space. The Department of Art fosters an M.F.A. program that draws

from all aspects of a diverse and comprehensive curriculum.

M.F.A. students study within a specific concentration while also being able to choose from a wide variety of learning experiences. The conceptual and ideological bases for artistic endeavors are explored through art history, graduate seminars and weekly critiques. The main goal of the M.F.A. program is to direct the M.F.A. student to explore, focus and excel.

Through conceptual and ideological dialogue, as well as the availability of technical expertise, the M.F.A. student at Towson is directed toward thematic consistency. While the postmodern environment encourages the integration of new technologies, interdisciplinary approaches and multicultural influences, the need to focus ideas within this climate is foremost in the mentoring of developing artists in the M.F.A. program.

Applicants to the M.F.A. program who are denied admission but display outstanding potential may be invited to participate in post-baccalaureate studies in studio art as preadmission course work for the M.F.A. program in Studio Art. Upon successful completion, these studies guarantee acceptance into the M.F.A. program in Studio Art.

Admission Requirements

- A baccalaureate degree, preferably in art.
- A minimum GPA of 3.00 for full admission, 2.50 for conditional admission or 2.50 for provisional admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
- For international students whose native language is not English, English competency must be certified by the achievement of a minimum of 550 on the Test of English as a Foreign Language (TOEFL).

Send the following admission materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252:

- A letter of intent: statement of your objectives
- A current resume
- Two letters of recommendation

- A slide or CD portfolio of work: 20 labeled 35mm color transparencies enclosed in a plastic slide sheet or CD with image list

The application deadline is February 1 for fall admission and November 1 for spring admission.

Degree Requirements

Completion of 60 units of degree work:

- 24 units of 600-and 700-level studio art courses in a selected area of study
- ART 783 M.F.A. Seminar (3)
- Art History (9 units)
- Elective art courses (6 units selected with the consent of the adviser from approved graduate courses)
- 9 units of ART 782 (ART 782 Art Topics is a 3-unit course that is repeatable)
- Final Term: ART 785 M.F.A. Studio II (3)
- ART 880 M.F.A. Project (6)
- Students are required to participate in both a mid-term and end-of-term review of their work each term. Students failing the mid-term review will have until the end-of-term review to make necessary adjustments. The review committee has the right to recommend dismissal from the program if it is deemed necessary.

ARTS INTEGRATION INSTITUTE

Certificate: Post-Baccalaureate

Program Director: Susan Rotkovitz

410-704-3658

srotkovitz@towson.edu

The Post-Baccalaureate Certificate (PBC) in Arts Integration is an interdisciplinary approach to arts education incorporating a variety of art forms (art, theatre, dance, music) as they apply to teaching through the arts in Maryland's schools, K-12. Although Towson University (TU) is the primary institution offering the PBC, this program is a collaborative effort involving four major institutions. TU's Arts Integration Institute (AII) and University of Maryland's (UM) Maryland Artist/Teacher Institute (MATI) and Crossing Borders/Breaking Boundaries programs focus on professional development for educators. The

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efforts of University of Maryland, Baltimore County (UMBC) incorporate the arts with non-arts disciplines and evaluate progress through the creation of electronic portfolios. The component offered by Johns Hopkins University (JHU) focuses on how themes in the neurological and cognitive sciences intersect with research-based instruction and meaningful integration of the arts. In addition, this program works cooperatively with Arts Education in Maryland Schools Alliance (AEMS) to provide opportunities for teaching and learning in and through the arts at all Maryland schools.

This program is consistent with Towson University's mission to provide programs that enhance the teaching skills and professional development of educators.

Admission Requirements

- Completion of a bachelor's degree from an accredited institution of higher education.
- Teaching experience is preferred, but not required.

Certificate Requirements

The Post-Baccalaureate Certificate in Arts Integration comprises six courses of 3 units each, totaling 18 graduate units. The recommended course matrix includes a required core of 12 units and two electives equaling an additional 6 units. A minimum of 9 units must be awarded through Towson University's Arts Integration Institute.

Required Core Courses (12 units)

IDFA 602	Arts Across the Curriculum (3) (TU)
EDUC 668	Creating an Electronic Portfolio (3) (UMBC)
IDFA 608	Capstone Seminar (3) (TU)
IDFA 609	Capstone Project (3) (TU)

Credits from courses taken through any of the cooperating institutions must be transferred to Towson University for eligibility toward the certificate award.

Elective Courses (6 units minimum)

Choose at least two from the following:

Towson University's Arts Integration Institute

IDFA 601	Enhancing Reading through the Arts (3)
IDFA 603	Drama in the Classroom (3)
IDFA 604	Interdisciplinary Seminar in the Contemporary Arts/Arts Integration (3)
IDFA 606	Art Forms (3) IDFA 607
IDFA 607	Teaching Thinking through Art (3)

University of Maryland

EDCI 788F	Maryland Artist/Teacher Institute (3)
EDCI 788	Crossing Borders/Breaking Boundaries (3)

University of Maryland, Baltimore County

ART 690	Independent Study (3)
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Johns Hopkins University

881.615	Mind, Brain and Teaching (3)
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Each participant will work closely with a mentor to design a personalized program to suit the participant's needs.

INTERACTIVE MEDIA DESIGN CERTIFICATE

Certificate: Post-Baccalaureate Program

Director: Bridget Z. Sullivan

410-704-2802

bsullivan@towson.edu

The online certificate in Interactive Media Design provides professionals, artists and educators the opportunity to advance their interactive media design knowledge and skills. Students complete 4 graduate-level studio art courses which address the front-end* design and production of Web sites and interactive media. The certificate emphasizes visual communication and graphic design theories and practices within the applied context of Web site and interactive media design.

*Front-end refers to the design and production of Web site interfaces as opposed to back-end Web design and programming. This certificate does not include such topics as: WWW database management, Internet infrastructure, systems development, client/server-side programming, network architecture or game design.

All required courses for the certificate are delivered online, permitting students from remote locations to complete the certificate without requiring on-campus attendance.

The Interactive Media Design Certificate consists of 12 units of graduate course work designed to either complement a graduate program of study or be completed as a stand-alone certificate for individuals seeking additional academic studies for professional growth or to advance their career.

The program is intended for students who have a bachelor's degree in an art-related field who will enter the program for advanced graduate study. The program may also be of interest to:

- Persons who do not have a bachelor's degree in Art, but who are currently employed in the graphic design field or art education field, and who are seeking professional skill development for career advancement.
- Persons who have a bachelor's degree in a discipline other than Art, have completed a minimum of 9 credits in undergraduate-level Studio Art courses, and who are seeking preparation for careers in this field.

For ease of taking the courses online, basic to mid-level computer skills are encouraged. Access to a suitable computer with broadband Internet service required.

Admission Requirements

- A bachelor's degree in Art or Art Education *or*
A bachelor's degree in another discipline with a minimum of 9 credits of course work in studio Art and/or professional experience working in the field of art education or graphic design.
- A minimum GPA of 3.00 for full admission, or 2.50 for conditional admission. All GPA

calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.

- For international students whose native language is not English, English competency must be certified by the achievement of a minimum of 550 on the Test of English as a Foreign Language (TOEFL).

Applicants must submit the following admission materials to the Graduate School Office:

- A letter of intent: statement of your objectives
- A current resumé

Required Courses

ART 610	Elements of WWW Design (3)
ART 620	Graduate Typography (3)
ART 641	Interactive Media Concept and Theory (3)
ART 765	Graduate Design for the WWW (3)

COMMUNICATION MANAGEMENT

Degree: Master of Science

Program Director: Sean Baker

410-704-5856

sbaker@towson.edu

The Master of Science in Communication Management focuses on how to manage and appropriately integrate a variety of communication functions. The program seeks to help students gain the knowledge and skills to research, plan, implement and evaluate communication activities designed to achieve organizational goals.

The Master of Science in Communication Management examines both internal and external organizational communication, including employee communication, advertising, public relations and integrated communication. It is designed for both career-oriented individuals who want to advance in their chosen fields and for students who intend to pursue doctoral studies. Students should work with the program director to identify the best combination of courses to meet their specific needs.

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Students are required to take the following courses in sequence: MCOM 605, MCOM 631, MCOM 606, MCOM 630 and MCOM 683. Students eligible to earn the Graduate Certificate in Strategic Public Relations and Integrated Communication may not have earned more than one C for any of the required courses.

Admission Requirements

- A bachelor's degree with at least 24 units of related course work in one or a combination of the following fields: mass communication, public relations and advertising; at least one advanced writing course; one statistics course; or equivalent professional experiences that are documented by the student and approved by the program director.
- A minimum overall undergraduate GPA of 2.75 for conditional admission or a GPA of 3.00 or higher for full admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study

The following materials should be sent directly to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252:

- Completed application
 - Transcripts
 - Fees
 - One letter of recommendation. Use the Recommendation Form in the Graduate School Application Packet.
 - A resumé
 - A statement in 1,000 words or less (typed, double-spaced), based on your resumé, that 1) explains your professional and academic experiences with researching, planning, implementing and evaluating communication programs and campaigns; and 2) describes at least four learning objectives—what you want to achieve in this program and why
 - A cover letter expressing intent and/or interest, indicating when you wish to enroll
- The application deadline is January 15.

NOTE: All prerequisite courses must be completed before the student can enroll in any graduate class. A letter grade of B or above is required.

Degree Requirements

- Completion of prerequisite courses
- Completion of a total 36 units of course work: 21 units of required courses and 15 units of electives. A minimum of 27 units (including graduate thesis) must be earned at the 600-800 levels.
- To receive a Master of Science in Communication Management students may not have earned more than two Cs for any of the required or elective courses.

Required Courses (21 units)

MCOM 605	Theories of Public Relations and Organizational Communication (3)
MCOM 606	Practice of Public Relations and Organizational Communication (3)
MCOM 630	Professional Communication Competences in a Changing Environment (3)
MCOM 631	Research Methods in Mass Communication (3)
MCOM 683	Communicating in Society: Perception and Reality (3)

Six units of a thesis supervised by a member of the faculty in Mass Communication and Communication Studies: MCOM 897; MCOM 898; and MCOM 899

Electives (15 units)

At least one from the following:

COMM 695	Independent Study in Communication Studies (3)
ISTC 541	Computer Technology and Utilization (3)
ISTC 605	Web-based Instruction in Education (3)
ISTC 633	Instructional Video (3)
ISTC 635	Theory and Design of Computer-Based Instruction (3)
ISTC 655	Media Design and Production (3)

- ISTC 687 Computer-Based Instruction (3)
 MCOM 507 Writing for New Media (3)
 PRWR 617 Editing (3)
 PRWR 621 Business Writing (3)
 PRWR 623 Technical and Scientific Writing (3)
 PRWR 625 Design, Layout and Production (3)

At least three courses from the following:

- COMM 518 Communication, Training and Development (3)
 COMM 519 Organizational Communication (3)
 COMM 522 Conference and Meeting Management (3)
 HRD 642 Organizational Behavior (formerly PSYC 642) (3)
 MCOM 533 Media Ethics (3)
 MCOM 547 Ad Campaigns (3)
 MCOM 559 Professional Issues in Public Relations (3)
 MCOM 572 International Advertising (3)
 MCOM 638 Managing Communication in a Culturally Diverse Society (3)
 MCOM 660 Crisis Communication (3)
 MCOM 670-673 Special Topics in Public Relations and Integrated Communication (3)
 MKTG 551 Public Relations for Nonprofit Organizations (3)
 MNGT 602 Conflict Management?in Commerce and Industry (3)
 PHIL 563 Business Ethics (3)
 WMST 611 Women, Public Policy and Social Change (3)

NOTE:

- 1) Up to 6 units of approved graduate courses may be transferred from other approved universities.
- 2) No more than 9 units of 500-level courses can be taken.
- 3) Some elective courses may have prerequisites. Students are responsible for making sure they have met these prerequisites, if any, prior to taking the course.
- 4) Some courses may not be offered each term. Students should consult each term's schedule of classes when determining which

courses to take.

- 5) No more than two 3-unit Independent Study courses may be applied to the degree; and, all Independent Study courses need to be approved by the program director prior to enrollment.

STRATEGIC PUBLIC RELATIONS AND INTEGRATED COMMUNICATION

Certificate: Post-Baccalaureate

Program Director: Sean Baker

410-704-5856

sbaker@towson.edu

This program consists of five courses (MCOM 605, MCOM 631, MCOM 606, MCOM 630 and MCOM 683). Students who earn the certificate are well on their way to completing the master's degree in communication management.

Admission Requirements

*See Communication Management for requirements and deadlines.

Required Courses (15 units)

- MCOM 605 Theories of Public Relations and Organizational Communication (3)
 MCOM 606 Practice of Public Relations and Organizational Communication (3)
 MCOM 630 Communication Competencies in a Changing Environment (3)
 MCOM 631 Research Methods in Mass Communication (3)
 MCOM 683 Communicating in Society: Perception and Reality (3)

Students eligible to earn the certificate in Strategic Public Relations and Integrated Communication may not have earned more than one C for any of the required courses.

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MUSIC EDUCATION (M.S.)

Degree: Master of Science

Program Director: Michael Jothén

410-704-2257

mjothen@towson.edu

The Master of Science in Music Education provides a flexible curriculum that allows students to earn up to 15 elective units in a field of specialization. In consultation with the graduate adviser, students may select a group of courses in which they are interested, such as music education, applied music, music theory, music history, music composition or other graduate areas. Students may elect to work concurrently on the graduate Certificate in Music Education.

Graduates of this program are usually employed as music teachers in public or private schools in the areas of vocal-general and/or instrumental music. Others are employed as private teachers or administrators, or as church musicians.

Admission Requirements

- A bachelor's degree in music education or music or certification as a public school music teacher.
- A minimum GPA of 3.00 for full admission or 2.50 for conditional admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
- Completion of music theory and history advisory examinations.

Degree Requirements

Plan A: Master of Science in Music Education with Thesis (minimum 34 units)

Required Courses (24 units)

MUED 601 Current Trends in Music Education (3)

MUED 661 Seminar in Instrumental Music (3)

or

MUED 662 Seminar in Choral Music (3)

MUED 695 Research Methods in Music Education (3)

MUSA xxx Performing/Composing Experiences (3) (see Music Applied (MUSA) Private Lessons and Ensembles under Course Descriptions)

MUSC xxx History/Literature (3)

MUSC xxx Theory/Composition (3)

MUSC 897 Thesis (6)

Electives (10 units)

Selected with approval from any 500-to 800-level courses. A maximum of 9 units may be at the 500 level.

Students are required to successfully complete the comprehensive examination covering course content in music and music education.

Plan B: Master of Science in Music Education with Graduate Project (minimum 34 units)

Required Courses (19 units)

Identical to Plan A except MUSC 880 Graduate Project replaces MUSC 897 Thesis

Also Required

MUSC 880 Graduate Project Paper (1)
or

Graduate Project Recital (1)
or

Graduate Project Composition (1)
or

Graduate Project Practicum (1)

Electives (15 units)

Selected with approval from any 500-to 800-level courses. A maximum of 9 units may be at the 500 level.

Students are required to successfully complete the comprehensive examination covering course content in music and music education.

MUSIC EDUCATION CERTIFICATE

Certificate: Post-Baccalaureate Program

Director: Michael Jothén

410-704-2257

mjothen@towson.edu

The graduate Certificate in Music Education provides comprehensive training for a music education specialist in an area of professional interest and/or need. In consultation with the program director and an appropriate faculty mentor, a sequence of courses and experiences totaling 15 to 21 units is identified which helps music educators to understand the rationale and curricula associated with their chosen interest. A sequence of instruction provides core experiences, supporting experiences, elective opportunities and a culminating experience appropriate to the area of interest. The program is designed to assist music educators in securing focused, advanced study in a personal area of choice. The certificate may be earned separately from, or in conjunction with, the Master of Science degree in Music Education.

Examples of core areas of study within the graduate Certificate in Music include the Application of Dalcroze, Orff and Kodaly, Community Music, Music Therapy, Conducting (instrumental and vocal), Studio Pedagogy and Music Industry.

Admission Requirements

Students must have a baccalaureate degree in Music Education or Music or be certified as a public school music teacher.

Certificate Requirements: General

Students must complete 15 to 21 units of course work with a culminating application experience in their core area of interest.

Certificate Requirements: DOK (15 units)

MUED 617 Choral Workshop in Elementary and Secondary School Music (2)

MUED 630 Dalcroze, Orff and Kodaly: Principles and Techniques for the Music Classroom I (2)

MUED 631 Dalcroze, Orff and Kodaly: Principles and Techniques for the Music Classroom II (2)

MUED 632 Dalcroze Practices (2)

MUED 633 Orff Techniques (2)

MUED 634 Kodaly Techniques (2)

MUED 635 Dalcroze, Orff, Kodaly Pedagogy and Curriculum Development (3)

MUSIC PERFORMANCE OR COMPOSITION

Degree: Master of Music

Program Director: Luis Engelke

410-704-4664

lengelke@towson.edu

The Master of Music program seeks to develop a high level of musicianship and scholarship. It is designed for students who exhibit special talents in performance or composition and have completed sufficient undergraduate courses to meet the requirements for admission. The degree prepares the candidates for careers in teaching, performing and composing.

Admission Requirements

- A Bachelor of Music degree with a major in the area of proposed graduate study or its equivalent.
- A minimum GPA of 3.00 for full admission or 2.50 for conditional admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
- Students completing the University of Maryland Baltimore County's Certificate in Contemporary American Music program may apply under a collaborative agreement.

Send the following admission materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252:

- Towson University's Graduate School Application.
- A supplemental application (available from the Graduate School).

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- Acceptable evaluation by two persons familiar with the applicant's scholarly and music performance aptitudes. Evaluations are completed on the Master of Music Degree Recommendation Form obtained from the Graduate School.
- For international students whose native language is not English, English competency must be certified by the achievement of a minimum of 550 on the Test of English as a Foreign Language (TOEFL).

Acceptable Performance on Audition

Successful applicants are expected to pass a Department of Music audition in the student's major area. Contact the program director for audition dates and procedures.

Degree Requirements (minimum 31 units)

Acceptable scores on the music theory and music history/literature advisory examinations. Students who do not meet minimal requirements may be required to enroll in prescribed courses. These courses may or may not count toward the degree.

Required Core (21 units)

- Private Lessons (12 units) (from student's major area)
- MUSC 685 Bibliography and Research (3)
- MUSC 631 Advanced Theory (3)
- Ensembles (2 units) selected, with approval, from Music Applied (MUSA) Ensembles (1) listed in the Course Descriptions section of this catalog.
- MUSC 797 Graduate Recital (1)

Electives (10 units)

Selected with approval from any 500-to 800-level music courses. A maximum of 4 of the elective units may be taken in lessons and/or ensembles.

Performance master's students without documented experience in pedagogy must take MUSC 542 (Vocal Pedagogy), MUSC 543 (Instrumental Pedagogy), MUSC 560 (Piano Pedagogy), or MUSC 562 (Guitar Pedagogy) as appropriate.

Exit Requirements

Students must satisfactorily complete the recital research paper and related oral defense.

THEATRE

Degree: Master of Fine Arts
Program Director: Stephen Nunns
410-704-4519
snunns@towson.edu

Associate Artist: Juanita Rockwell
410-704-3851
jrockwell@towson.edu
www.towson.edu/theatre/graduate.htm

The Towson M.F.A. in theatre is a unique program that trains the total theatre maker as self-producing artist. The program is dedicated to creating a fluid, alternative environment for the training of the contemporary theatre artist. The program is designed as a self-directed process that will challenge, expand and develop each participant's artistic vision. This vision is explored in terms of its structural, aesthetic and cultural context, as well as its skillful application of craft.

Intercultural, interdisciplinary and collaborative, Towson's M.F.A. in Theatre is for artists who cannot be content working in a single discipline or in the traditional conservatory model. They want to construct the soundscape that interacts with the spoken text they have written. They want to build the puppets as well as train the performers they're directing. They want to perform the text themselves, illuminated by their own lighting design. They want to create the installation in which they will perform.

We seek artists who would feel restricted by a conservatory style program. Students accepted into this program have already begun to articulate a creative vision, but have decided to return to graduate school to both expand and refine their vision. Whether directing, designing, performing, producing, constructing or writing, the student/artist must be willing to work both independently and collaboratively. The program is based on the

cross-fertilization of ideas among participants and the thoughtful implementation of human, material, economic and environmental resources. The program requires that its participants create their own opportunities, work in a variety of disciplines and serve as self-producing artists.

Seminars and workshops with distinguished visiting artists play a major role in the foundation of the curriculum. Guest artists expose the student/artist to a wide range of theatrical styles and methods, emphasizing their cultural contexts and underlying principles. Guests may facilitate a master class for one or more days, lecture or demonstrate as part of a required class, or work in extended residency with the students of the program.

Guest artists come to us from throughout the United States and from other countries including Afghanistan, Brazil, Bulgaria, Canada, Costa Rica, Finland, Germany, Israel, Hungary, Indonesia, Japan, Netherlands, Russia, and South Africa. The list of artists includes Brenda Wong Aoki, Richard Armstrong, Philip Arnoult, Augusto Boal, Anne Bogart, Kate Bornstein, Lee Breuer, Erik Ehn, Rinde Ekert, Heinz Uwe Haus, Jean-Claude van Itallie, Jeffrey Jones, Liz Lerman, Roberta Levitow, Andrei Malaev-Babel, Tim Miller, Eric Nightengale, Jim O'Quinn, Michael Rohd, Steven Sapp, Shozo Sato, Tina Shepard, Theodora Skiptares, Dominic Taylor, Caridad Svich, Mac Wellman, Russian director Yury Urnov, Putu Wijaya and ensembles such as Bond Street Theatre, Bloomsburg Theatre Ensemble, Dell'Arte International, LAPD, Pig Iron Theatre, Mum Puppettheatre, Sandglass Theatre, San Francisco Mime Troupe, Squonk Opera, Teatro Abya Yala (Costa Rica), Touchstone Theatre, Wax Factory, and Malcolm Purkey from South Africa's Market Theatre. Towson faculty, as well as guest artists, have exposed students to many techniques and forms including Viewpoints training, ensemble performance, the voice work of the Roy Hart Theatre, fundraising, playwriting, the creation of community-based performances, Queer Theatre, puppetry, physical theatre political theatre, spoken-word theatre and a variety of forms of ensemble practice from both the

rehearsal room and producing and management practices.

While not a conservatory model, there is a tightly structured curriculum. Of the 60 units required for graduation, 43 units consist of the program's core courses. We advise students to emphasize the core curriculum during the first two years, so as to leave the third year open to place primary focus on their final projects. During the first year of the program, student/artists are encouraged to explore their own artistic visions and the aesthetic of those around them—fellow students, guest artists, people focusing on other disciplines—both within the university and beyond. It is also the year of foundational contextualization for the theatre maker. In the second year, student/artists continue to seek out opportunities to collaborate on projects with others while developing their own projects in a supported and ongoing portfolio development process. Finally, in the third year, the student/artist seeks out collaborators to generate projects under their own development.

All graduate students approach projects from an interdisciplinary perspective and each student works in a wide variety of disciplines. New work may be created in a variety of forms, such as interdisciplinary constructions or installations, ensemble creation, performance art, movement-theatre or productions of new scripts. Projects may use the facilities of the Center for the Arts, including the Dreyer MFA Lab, or off-campus spaces in the greater Baltimore area and beyond. Transformations of existing literature may involve reconstructing classic text or design elements, historical reinterpretation or the integration of intercultural aesthetics. In directing and design, special attention is given to the collaborative creation of style. In text construction, special attention is given to innovative language and structure. In dramaturgy, special attention is given to tracing the lineage from seminal artists in performance, text construction, directing and scenography to contemporary practitioners, asking the student to identify antecedents for their own developing aesthetic. In technical production, special attention is given to safely integrating new technology, practices and

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materials. In performance, special attention is given to the integration of voice and movement as an expression of style. The student-artist is urged to combine disciplines within a given project, perhaps working as director/designer, writer/performer or dramaturg/videographer.

Admission Requirements

Applicants must hold a bachelor's degree from a regionally accredited college or university with a GPA of 3.00 or higher based on the applicant's last 60 credits of undergraduate and post-baccalaureate study. A minimum GPA of 2.75 is required for conditional admission and a minimum GPA of 2.50 is required for professional admission. All matriculated students are accepted conditionally for one year. At the end of the first year of study, all students will be evaluated by the faculty and either granted or denied full admission. At the end of the second year of study, students are again evaluated for continuance, based on their readiness to undertake their final project, as demonstrated by their academic standing, portfolio review and final project proposal.

Candidates are screened by both the M.F.A. program and by the Graduate School. The following admission materials should be submitted to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252 no later than February 15:

- A Graduate School application with required fee
- Official transcripts from every college or university attended
- A personal artistic statement outlining the candidate's goals as a theatre artist and the specific relevance of the M.F.A. program at Towson to the candidate's objectives
- A current professional resumé
- Slides, photographs, video, reviews, papers, scripts or other supporting materials in multiple artistic disciplines
- Three letters of recommendation from individuals who can speak to the applicant's talent, scholarship, collaborative skills and ability to thrive in a self-directed program
- A list of at least three other references, with telephone numbers, whom the department may contact for additional evaluations

An interview with an audition and/or preliminary portfolio review may be granted at the discretion of M.F.A. faculty following initial admission screening.

Degree Requirements

The Master of Fine Arts in Theatre requires 60 units.

Required Courses (43 units)

THEA 601	Dramaturgy: Interdisciplinary (3)
THEA 602	Dramaturgy: Intercultural (3)
THEA 607	Self-Empowerment in Theatre (3)
THEA 608	Theatre Design Techniques (3)
THEA 609	Text Construction (3)
THEA 610	Theatre Systems (3)
THEA 675	Research Methods (3)
THEA 720	Graduate Directing (1-4)
THEA 730	Sound Application and Technology (1-4) T
HEA 740	Graduate Project Laboratory (2)
THEA 750	Graduate Project Rehearsal and Performance (2)
THEA 760	Integrated Seminar (3) (must be repeated at least once)
THEA 880	Final Project (6)

One of the following:

THEA 603	Performance: Solo (3)
THEA 605	Performance: Ensemble (3)
THEA 606	Voice/Movement Integration (3)

Electives (17 units)

These courses are chosen in collaboration with a department adviser.

A project proposal and portfolio review is required before registering for the final project.

Towson University reserves the right to change degree requirements for the M.F.A. Information on changes will be available from the graduate program director.

THE COLLEGE OF HEALTH PROFESSIONS

The need for highly qualified health professionals with advanced degrees is at an all-time high. Thus, the mission of the College of Health Professions is to provide exceptional graduate learning experiences in a wide range of health care professions that promote and enhance health and well-being. Emphasis is placed on theory-based applications for practice, education, management and research that will prepare graduates to assume roles in a variety of educational, clinical and community settings.

The college offers doctoral, master's and graduate certificate programs. We are committed to the key values of lifelong learning, excellence, ethical and moral conduct, collaboration and respect for the worth and dignity of all people. Graduates are expected to exhibit the highest ethical principles and professional behaviors in the application of knowledge and critical thinking and are proficient in the use of skills, effective communication and technology. Internships, clinical experiences and/or independent studies provide opportunities to supplement and enhance each student's academic course work. Students have ready access to an outstanding array of opportunities in the many health care, educational, community and professional organizations in the surrounding area.

Graduate programs in the college are accredited by appropriate professional and educational agencies, thus enabling the successful graduate to sit for her or his professional licensure or certification exam where those credentialing mechanisms exist.

Charlotte E. Exner, Dean

COLLEGE OFFICE
Towson Center 337
410-704-2132
Fax: 410-704-3479
www.towson.edu/chp

Doctoral Degree Programs

Audiology
Occupational Science

Master's Degree Programs

Applied Gerontology
Health Science

- Administration
- Community Health Education
- School Health Education

Kinesiology
Nursing
Occupational Therapy
(professional preparation and post-professional programs)
Physician Assistant Studies
Speech-Language Pathology

Post-Baccalaureate Certificate Programs

Applied Gerontology Clinician-Administrator
Transition (CAT) Nursing Education

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APPLIED GERONTOLOGY

Degree: Master of Science

Program Director: Donna L. Wagner

410-704-4643

dwagner@towson.edu

The graduate program in Applied Gerontology prepares students to work in community settings serving the needs of the older population. The degree provides a basic foundation of knowledge, education and skills to students so they may move into positions in the fields of health, housing, social services or private sector enterprises serving older consumers.

Admission Requirements

- A bachelor's degree with a minimum of 9 credits of upper-level course work in social sciences and/or experience working in the field of gerontology and/or course work or training in the field of gerontology.
- Meet the minimum requirements for admission to Towson University's Graduate School.

Send the following admission materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252:

- Two letters of recommendation
- A one-to two-page essay discussing career goals and the planned focus of the graduate work

Degree Requirements

- Completion of 36 units with a cumulative GPA of 3.00 or better
- Satisfactory completion of core required courses:

GERO 601 Seminar in Professional Gerontological Issues (3)

GERO 610 Applied Gerontological Research Methods (3)

GERO 620 Legal Issues in Gerontological Practice (3)

GERO 684 Gerontological Practicum (3)
or

GERO 685 Independent Study in Gerontological Practice (3)

HLTH 619 Organizing Systems of Care for Chronically Ill and Physically Dependent Populations (3)

PSYC 610 Advanced Psychology of Aging (3)

- Satisfactory completion of 18 units of graduate electives as approved by academic adviser.

NOTE: Earn a Graduate Certificate in Family-Professional Collaboration with your elective units. See the Family-Professional Collaboration heading in the College of Liberal Arts section for more information.

APPLIED GERONTOLOGY CERTIFICATE

Certificate: Post-Baccalaureate Program

Director: Donna L. Wagner

410-704-4643

dwagner@towson.edu

The Graduate Certificate in Applied Gerontology consists of 18 units of graduate course work designed to complement a graduate program of study or as a stand-alone certificate.

Admission Requirements

- A bachelor's degree with a minimum of 9 credits of upper-level course work in social sciences and/or experience working in the field of gerontology and/or course work or training in the field of gerontology
- Meeting the minimum requirements for admission to Towson University's Graduate School

Send the following admission materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252:

- Two letters of recommendation
- A one-to two-page essay discussing career goals and the planned focus of the graduate work

Certificate Requirements

- Completion of 18 units with a cumulative GPA of 3.00 or better
- Satisfactory completion of 9 units selected from the core courses required for the Master of Science in Applied Gerontology:

GERO 601	Seminar in Professional Gerontological Issues (3)
GERO 610	Applied Gerontological Research Methods (3)
GERO 620	Legal Issues in Gerontological Practice (3)
GERO 684	Gerontological Practicum (3)
or	
GERO 685	Independent Study in Gerontological Practice (3)
HLTH 619	Organizing Systems of Care for Chronically Ill and Physically Dependent Populations (3)
PSYC 610	Advanced Psychology of Aging (3)

- Satisfactory completion of 9 units of graduate electives as approved by academic adviser

AUDIOLOGY

Degree: Applied Doctorate in Audiology (Au.D.)

Program Director: Diana Emanuel

410-704-2417

demanuel@towson.edu

The Applied Doctorate in Audiology program is accredited by the Council on Academic Accreditation (CAA) of the American Speech-Language Hearing Association.

The Au.D. curriculum consists of a minimum of 105 units including the following requirements: a minimum of 35 units of clinical practicum, which includes a one-year clinical externship, and a minimum of 7 units of doctoral thesis preparation.

The program of study is intended to train clinicians who will demonstrate competency:

- in oral, written and other forms of communication
- in scientific and research foundations of practice
- in prevention and identification of communication disorders

- in evaluation and treatment of disorders of auditory, balance, communication and related systems
- by passing department assessments of clinical and academic competency

The Au.D. degree will prepare the individual for national certification and state licensure. All clinical requirements of the American Speech-Language-Hearing Association (ASHA) and the Department of Audiology, Speech-Language Pathology and Deaf Studies must be completed before the Au.D. degree is awarded.

Students must abide by professional and ethical standards established by the department and by ASHA. The audiology program requires that students successfully complete on- and off-campus clinical rotations and an off-campus clinical externship. The on-campus clinic and many of the off-campus placements require a criminal background investigation. A criminal record may prohibit a student from participating in clinical rotations and completing the degree program. Furthermore, a criminal record may prohibit an individual from obtaining the required certification and/or licensure required for professional practice. In addition, students must submit documentation of required immunizations.

Students in graduate ASLD programs will be permitted to repeat a maximum of two courses for which grades of "C" or lower were earned for any required or elective courses.

Admission Requirements

- Bachelor's degree with a minimum GPA of 3.00. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
- For international students a TOEFL score of 600 or above is required. A U.S. degree does not waive the requirement of TOEFL for this program.
- Successful completion of the following prerequisite courses:

A course in life science (e.g., biology) (3-4)

Behavioral Statistics (3-4)

A course in social science (e.g., psychology, sociology) (3)

Phonetics (3)

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Hearing Science OR Hearing and Speech Science (3)

Anatomy and Physiology of the Auditory and Vocal Mechanism (3)

Introduction to Audiology (3)

Basic Mathematics (3)

A course in physical science (e.g., chemistry, physics) (3-4)

Introduction to Human Communication (3)

Language Development (3)

Send the following admission materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252:

- A one- to two-page essay answering the following question: "Is there a place for clinically based research in an Au.D. program?"
- GRE scores
- Three letters of recommendation (include graduate school rating sheet)

Five-Year Au.D. for Students Who Have Not Completed Prerequisite Course Work

Students with a bachelor's degree in a discipline other than Communication Sciences and Disorders and who are missing more than 3 prerequisite courses may apply for the five-year Au.D. program. (Note: If 3 or fewer prerequisites are missing, students are eligible to apply for the four-year Au.D. program and may take the missing courses concurrently with Au.D. courses). The application requirements are identical to the traditional four-year Au.D. program except the last 60-credit GPA must be 3.5 or higher. The five-year Au.D. program includes a pre-Au.D. year of 24 to 26 units of course work. Students must complete three of the required prerequisite courses before entering the five-year program. Students who have completed more than three prerequisite courses are still required to complete a minimum of 24 units of course work in order for the faculty to evaluate their ability to succeed in the Au.D. program; therefore, the option of electives is provided in lieu of missing course work. Students must achieve a 3.50 or better GPA in the pre-Au.D. year in order to continue in the Au.D. program.

Pre-Au.D. year required course sequence (24-26 units):

Fall (12 units)

SPPA 200 Anatomy and Physiology of the Auditory/Vocal Mechanisms (3)

SPPA 215 Language Development in Children (3)

SPPA 210 Phonetics (3)

SPPA 321 Introduction to Audiology (3)

Spring (12-14 units)

SPPA 303 Hearing Science (3)

SPPA 101 Introduction to Human Communication

Required prerequisite course or SPPA elective (3)

Required prerequisite course or SPPA elective (3)

Electives

SPPA 302 Phonological Theory and Disorders (3) S

PPA 304 Language Theory and Disorders (3)

SPPA 306 Organic Disorders of Speech and Language (3)

Degree Requirements

All course work, examinations, writing and clinic practicum clock hour requirements of the Department of Audiology, Speech-Language Pathology and Deaf Studies must be completed, and students must demonstrate mastery in four areas of audiology: foundations of practice, prevention and identification, evaluation and treatment as specified by the American Speech-Language-Hearing Association (ASHA) before the Au.D. degree is awarded.

Research Project

Each student will complete an Audiology Doctoral Thesis. This project could be an extensive case study or a research project. Projects will be presented to the ASLD faculty in written and oral form for their evaluation.

Required Courses

ACSD 601	Introduction to Audiology Practice (1)
ACSD 603	Anatomy and Physiology of the Peripheral Auditory and Vestibular Systems (3)
ACSD 604	Neuroanatomy and Physiology of the Central Auditory and Vestibular Systems (2)
ACSD 605	Counseling in Audiology (2)
ACSD 606	Pharmacology (2)
ACSD 607	Genetics in Audiology (1)
ACSD 611	Acoustics and Psychoacoustics (2)
ACSD 621	Auditory Diagnostics I (3)
ACSD 622	Auditory Diagnostics I Lab (1)
ACSD 645	Communication and Aging (2)
ACSD 655	Hearing Aids I (3)
ACSD 690	Audiology Clinic On Campus I (3)
ACSD 706	Audiology Practice Management (2)
ACSD 714	Research Methods in Audiology (2)
ACSD 721	Auditory Diagnostics II (3)
ACSD 723	Medical Audiology (2)
ACSD 731	Calibration and Instrumentation (2)
ACSD 743	Electrophysiologic Evaluation of the Peripheral Auditory System (3)
ACSD 744	Electrophysiologic Evaluation of the Central Auditory Nervous System (3)
ACSD 745	Audiology Clinic On Campus II (3)
ACSD 746	Audiology Clinic On Campus III (3)
ACSD 747	Audiology Clinic Off Campus I (2)
ACSD 748	Audiology Clinic Off Campus II (2)
ACSD 751	Hearing Conservation (2)
ACSD 753	Pediatrics and Educational Audiology (3)
ACSD 754	Audiologic Rehabilitation across the Lifespan (2)
ACSD 755	Hearing Aids II (3)
ACSD 756	Cerumen Management (1)

ACSD 796	Doctoral Thesis Proposal Development I (2)
ACSD 797	Doctoral Thesis Proposal Development II (2)
ACSD 843	Vestibular Assessment and Rehabilitation (3)
ACSD 844	Tinnitus (1)
ACSD 847	Audiology Clinic Off Campus III (2)
ACSD 848	Audiology Clinic Off Campus IV (2)
ACSD 853	Cochlear Implants (3)
ACSD 855	Hearing Aids III (3)
ACSD 898	Audiology Doctoral Thesis (3)
ACSD 998	Audiology Clinical Externship (18) (48 weeks)
Graduate-level statistics course (3)	

CLINICIAN-ADMINISTRATOR TRANSITION (CAT)

Certificate: Post-Baccalaureate Program

Director: Marcie Weinstein

410-704-4049

mweinstein@towson.edu

The graduate Clinician-Administrator Transition Certificate is designed for health care professionals interested in developing administrative skills. The program focuses on the practical application of administrative theory, and emphasizes leadership and skill development through a sequence designed to introduce concepts and facilitate application of skills using case study, team teaching, information technology and other relevant methodologies. Upon completion of the program, students will possess the knowledge and skills necessary to provide excellence in leadership and day-to-day management in the delivery of health care services.

Individuals enrolled in this 15-unit certificate will be able to apply units from this program to master's degree programs in Nursing, Occupational Therapy or Health Science if accepted into those programs.

Admission Requirements

Applicants must meet the general requirements for graduate study outlined in the Tow-

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son University Graduate Catalog . Additional requirements include:

- Licensure, eligibility for licensure, or certification in a clinical area.
- Bachelor's or master's degree in a clinical field (occupational therapy, physical therapy, nursing, respiratory therapy, nursing, dietetics, etc.)
- GPA of at least 3.00 for full admission and 2.75 for conditional admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study. Once all materials are received and evaluated, applicants will be notified regarding acceptance to the program. Students may be admitted at any time during the year. For information regarding the Clinician-Administrator Transition certificate, please contact the program director.

Certificate Requirements

Required Courses

IDHP 600	Transitions: Health Professionals in a Changing Environment (3)
IDHP 605	Managing Health Care Professionals (3)
IDHP 610*	Administration of Health Care Organizations (3)
*This class is the capstone for the CAT program, taken after all others.	
IDHP/	Health Care Financial
HLTH 647	Management (3)
IDHP/	Planning and Marketing
HLTH 651	Health in Business and Industry (3)

HEALTH SCIENCE

Degree: Master of Science

Program Director: Susan M. Radius

410-704-4216

sradius@towson.edu

The master's program in Health Science is designed to meet needs within the state of Maryland for graduate-trained professionals to work in educational, medical care, commu-

nity and work-site settings. The program is intended both for people with classroom or work experience in the health sciences or related fields as well as those seeking to expand their expertise to include the field of health science. It is particularly well suited to people who have been in the work force and now wish to receive additional education to enhance their performance as well as their competitiveness on the job.

Students may select from three concentrations: Community Health Education, School Health Education or Administration.

A graduate of the Community Health Education Concentration may pursue a career as a health education specialist in a variety of public and private sector agencies. Students holding current credentials in pharmacy, nursing, dentistry, dietetics and other professions may wish to combine their skills from prior training and redirect their careers toward community health education related to their specific prior training. A graduate of the School Health Education Concentration can consider such employment opportunities as classroom health teacher, supervisor of a health science program within a school system, health education media specialist, program evaluation specialist or a position within continuing education and school personnel departments. A graduate of the Administration Concentration is prepared for positions in a variety of settings (voluntary, proprietary, governmental, school, community, etc.) that require sound backgrounds in health and administration.

The distinctiveness of the master's program in Health Science is its emphasis in pragmatic applications derived from theory. The program is based on the core approach of providing a sound academic base in principles of education and training, research and behavioral sciences. While students register for graduate work within the Department of Health Science, support cores from this or other university departments can be selected to contribute toward their individual professional goals. In addition, with permission of the program director, students may transfer up to 9 graduate credits earned in other academic settings to their master's program of study.

Students may elect to pursue a graduate project or thesis, if either activity is consistent with their professional goals.

The master's program in Health Science is designed to accommodate the needs of students whose personal and professional lives restrict their ability to enroll in a full-time, traditional graduate program. Students are overwhelmingly part-time, participating in courses that are primarily offered only during weekday evenings throughout the year. Individuals desiring full-time graduate status may be able to construct programs responsive to their needs. However, the department cannot promise that full-time course work will be possible within any given term or academic year.

Admission Requirements

Admission to the master's program in Health Science may be secured in two ways:

1. The master's program requires an undergraduate degree in a health science field (e.g., nursing, health education, psychology, etc.) or substantial upper-division course work in those fields, or experience in those same areas (as determined by the program director). In addition, applicants must maintain a minimum GPA of 3.00 to be admitted to the master's program; conditional admission may be granted to students whose GPA is at least 2.75. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
2. Also eligible for conditional admission are individuals without the stipulated educational or experiential foundation. To qualify for this category of conditional admission, candidates must provide the program director with a personal statement (no more than 500 words) that establishes why they seek admission to the master's program and how they see themselves using the degree; have at least three years documented work experience; and maintain a minimum GPA of at least 2.75. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.

Degree Requirements

The master's program in Health Science requires successful completion of 36 units. For students in School Health Education, 18 units are identified for the student by the Department of Health Science, with the remainder derived from elective offerings. In Community Health Education, 18 units are stipulated by the department. For those enrolled in the Administration Concentration, 15 units constitute mandatory enrollment. Mandatory enrollment for students who elect a dual concentration will derive from the two concentrations comprising their degree program. In addition, all students must complete a three-course requirement (for Community Health Education: HLTH 639, 615 and a third course selected with advisement; for School Health Education: HLTH 601, 615 and a third course selected with advisement; for Administration: HLTH 617, 615 and a third course selected with advisement) with a GPA of 3.00 in their first attempt at these courses. The three-course requirement for students pursuing a dual concentration will include HLTH 615 and one required course unique to each of the two concentrations comprising their degree program. Students who earn one C among those three courses must register for and receive no less than a B in HLTH 691 to remain in the Health Science master's program; this course will not be included in the 36 units necessary to complete the program.

Students who are conditionally admitted because they do not have the stipulated educational or experiential foundation must complete the following as terms of their conditional admission:

- HLTH 603 Emerging Issues and Frameworks in the Health of the Nation (3)
- HLTH 618 Introduction to Public Health (3)

and

- A third course consistent with the student's concentration to be chosen with approval of faculty adviser (3)

Registration in these courses is strongly encouraged before enrollment in other program

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requirements of the student's concentration. The three courses must be completed before the student is eligible for graduation, and will be considered part of support or elective course work for all program concentrations.

School Health Education

Health Science Required Core (18 units)

- HLTH 601 Contemporary Issues in School Health (3)
- HLTH 615 Community Health: Qualitative and Quantitative Elements (3)
- HLTH 625 Research Methods in Health (3)
- HLTH 639 Introduction to Health Behavior and Health Promotion (3)
- HLTH 643 Curriculum Development (3)
- HLTH 785 Graduate Seminar (3)

Content Health Core Electives (12 units)

- HLTH 501 Teaching about Drugs and Sex (3)
- HLTH 505 Drugs in Our Culture (3)
- HLTH 551 Ecological Aspects of Health (3)
- HLTH 637 Leadership Skills (3)
- HLTH 649 Program Evaluation (3)

or

other HLTH/HCMN/GERO electives, or those approved by the program director

Elective Health Core (6 units)

- HLTH 880 Graduate Project in Health Science (3)
- HLTH 897 Master's Thesis in Health (6)

or

other HLTH/HCMN/GERO electives, or those approved by the program director

Community Health Education

Health Science Required Core (18 units)

- HLTH 615 Community Health: Qualitative and Quantitative Elements (3)

- HLTH 625 Research Methods in Health (3)
- HLTH 631 Program Planning in Health Education (3)
- HLTH 639 Introduction to Health Behavior and Health Promotion (3)
- HLTH 649 Program Evaluation (3)
- HLTH 785 Graduate Seminar (3)

Content Health Core Electives (6 units)

- HLTH 601 Contemporary Issues in School Health (3)
- HLTH 617 Health Administration (3)
- HLTH 633 Health Care Systems (3)
- HLTH 637 Leadership Skills (3)
- HLTH 645 Health Care Policy (3)
- HLTH 651/ IDHP 651 Planning and Marketing Health in Business and Industry (3)

or

other HLTH/HCMN/GERO electives, or those approved by the program director

Support Core (12 units)

- HLTH 880 Graduate Project in Health Science (3)
- HLTH 897 Master's Thesis in Health (6)

or

other HLTH/HCMN/GERO electives, or those approved by the program director

Administration

Health Science Required Core (15 units)

- HLTH 615 Community Health: Qualitative and Quantitative Elements (3)
- HLTH 617 Health Administration (3)
- HLTH 625 Research Methods in Health (3)
- HLTH 633 Health Care Systems (3)
- HLTH 785 Graduate Seminar (3)

Content Support Health Core Electives (21 units)

- HLTH 631 Program Planning in Health Education (3)

- HLTH 639 Introduction to Health Behavior and Health Promotion (3)
- HLTH 645 Health Care Policy (3)
- HLTH 649 Program Evaluation (3)
- HLTH 651/ Planning and Marketing
- IDHP 651 Health in Business and Industry (3)
- HLTH 880 Graduate Project in Health Science (3)
- HLTH 897 Master's Thesis in Health (6)
- or
- other HLTH/HCMN/GERO electives, or those approved by the program director

NOTE: The Master's in Health Science is not equivalent to earning certification to teach health in the state of Maryland.

All students must complete a three-course requirement (determined by their concentration) with a GPA of 3.00 in the first attempt at these courses. Students who attain a 3.00 in the courses, but who earn a C in one of the courses must register for HLTH 691 Directed Readings, with a Health Science faculty member in the area in which the C grade was earned. The grade of B or higher in HLTH 691 must be earned. Students who do not earn a 3.00 or higher in the three required courses or who earn less than a B in HLTH 691 are academically dismissed from the program.

NOTE: Earn a Graduate Certificate in Family-Professional Collaboration with your elective units. See the Family-Professional Collaboration heading in the College of Liberal Arts section for more information.

KINESIOLOGY

Degree: Master of Science
 Program Director: TBA
 410-704-
 @towson.edu

The Master of Science degree program in Kinesiology is designed to provide physical education professionals with advanced study in kinesiology, physical education pedagogy,

and current social and educational issues impacting physical activity and its contributions to healthy lifestyles. The program creates "master teachers" who develop and teach quality programs and who possess technological and pedagogical competencies necessary to address the critical educational and lifestyle issues facing the children and youth of today. The program strengthens the knowledge base in kinesiology, curriculum development, instructional effectiveness, technology use and assessment. In addition, the program provides two significant services:

1. It creates "master teachers" who will be prepared to mentor future teachers from the Towson University undergraduate program in Physical Education Teacher Education,
2. It provides teachers who already possess a master's degree opportunities to update their knowledge base, to satisfy requirements for professional licensure renewal and continued professional development in the discipline.

The program primarily serves teachers in the school districts in the greater Baltimore region with a focus on creating master teachers who are prepared to address critical health issues associated with the obesity/sedentary lifestyle pandemic, and who will provide leadership in the development of quality physical education programs in Maryland schools. Graduates of the program will be encouraged to serve as mentor teachers for Towson University Physical Education undergraduate students. Finally, these connections can enhance opportunities for collaborative research partnerships between university faculty, graduate students and the community at large.

NOTE: The master's in Kinesiology is not equivalent to earning certification to teach physical education in the state of Maryland.

Admission Requirements

For admission to the graduate program, candidates must possess an undergraduate degree in physical education, kinesiology or equivalent degree background; have achieved a minimum GPA of 3.00 (2.75 for conditional admission) based upon the last 60 units of undergraduate

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and post-baccalaureate study from NCATE or other related accredited programs; and be certified/licensed by Maryland Department of Education (or another state) to teach physical education or health and physical education. Additionally, the applicant must submit an essay that includes:

- the student's reasons for wishing to enter the M.S. program
- an explanation of the ways in which the program will enable the applicant to achieve personal and/or professional goals
- a preliminary overview of the student's proposed plan of study

Degree Requirements

The master's program in Kinesiology requires successful completion of a minimum of 36 units. Required courses can be found by accessing the graduate school Web site.

NURSING

Degree: Master of Science

Program Director: Kathleen T. Ogle

410-704-4389

kogle@towson.edu

The Master of Science degree program in Nursing is designed to prepare graduates to assume key roles in the delivery of health care to individuals and families within a community-based nursing practice. Options are available in Nursing Education, Clinical to Administration Transition or Nursing Practice Clinician.

A community-based nurse is a nurse who brings special knowledge of health promotion, prevention and coordination of multiple systems and services to his or her practice setting in the community. An individual and family-centered orientation, the development of partnerships with clients and an appreciation of the values of the community characterize community-based nursing. Community settings are not limited and specialization can focus on specific population groups. This degree is not a specialty in nursing, but a philosophy that guides care in all nursing specialties. It does not prepare a nurse to sit for

advanced practice certification, but does include clinical content.

All students are required to complete the Graduate Nursing Core. In addition, each student will select a concentration for further study: Nursing Practice Clinician, Nursing Education or Clinician Administrator Transition (CAT). Students may elect to pursue a graduate project or thesis, if either activity is consistent with their professional goals. The master's program is designed for the student who has a bachelor's degree in Nursing and is licensed as a Registered Nurse (RN), or eligible, in the state of Maryland.

The program also serves the needs of the full-or part-time student. Practicum experiences will be planned with appropriate agencies using a time frame congruent with the goals of the experience and preceptor assignments.

Admission Requirements

Applicants to the Master of Science program must meet the general requirements for graduate study established by the Department of Nursing and as outlined in this catalog. Specifically, they must have:

- A baccalaureate degree with a major in Nursing
- A minimum GPA of 3.00 for full admission or a minimum GPA of 2.75 for conditional admission
- Satisfactory completion of an elementary statistics and/or nursing research course
- Completion of an approved physical assessment course

Send the following admission materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252:

- A one-page personal statement in which the applicant discusses his or her reasons for seeking admission to the program and how the program will meet the applicant's professional goals
- A current curriculum vita
- A photocopy of a current license to practice nursing in at least one state in the U.S. Prior to any clinical practice course, the student must be licensed as a Registered Nurse (RN) in the state of Maryland

Applicants whose credentials do not meet the stated criteria for admission and believe their situation warrants special consideration are encouraged to contact the department for information related to its individual review policy.

Degree Requirements

The master's program in Nursing requires successful completion of a minimum of 36 units. Fifteen of these units will be determined by the concentration the student selects.

Core Courses (21-27 units)

- IDHP 741 Ethical and Legal Issues in Clinical Practice (3)
- NURS 601 Theoretical Foundations of Nursing Practice (3)
- NURS 603 Nursing Research (3)
- NURS 605 Nursing in Health Care Systems (3)
- NURS 700* Community-Based Nursing (3)
- NURS 800* Advanced Community-Based Nursing Practice (3)
- NURS 898 Nursing Master's Thesis (6) (Optional)

Elective course from nursing or a department outside of nursing (3)

*These classes are capstone classes, taken after all other core courses are completed.

Concentration A: Nursing Practice Clinician (15 units)

Students with special interests or needs can plan a unique master's program with their adviser and approval of the program director. Students will select three electives from courses available in nursing or in other departments. In addition, students will be required to take the following courses:

- NURS 801* Clinical Practicum in Community-based Nursing (3)
- NURS 812* Seminar in Community-based Nursing (3)

*The 800-level courses are capstone courses.

NOTE: Earn a Graduate Certificate in Family-Professional Collaboration with your elective units. See the Family-Professional Collabora-

tion heading in the College of Liberal Arts section for more information.

Concentration B: Nursing Education (15 units)

Students who desire to teach in a nursing school, work in staff development, or education in a health care agency will complete the following courses. These courses constitute the requirements for a Certificate in Nursing Education (15 units). The certificate option may be selected alone, or serve as a component of the master's program.

- NURS 610 Curriculum Development in Nursing (3)
- NURS 612 Teaching and Learning in Nursing (3)
- NURS 710 Evaluation in Nursing Education (3)
- NURS 712 The Adult Learner (3)
- NURS 810* Teaching Practicum (3)

*The 800-level course is a capstone course taken after all others.

Concentration C: Clinician-Administrator Transition (CAT) (15 units)

Students desiring to emphasize administration can complete the CAT certificate program, including the following courses:

- IDHP 600 Transitions: Health Professionals in a Changing Environment (3)
- IDHP 605 Managing Health Care Professionals (3)
- IDHP 610* Administration of Health Care Organizations (3)
- IDHP/ HLTH 647 Health Care Financial Management (3)
- IDHP/ HLTH 651 Planning and Marketing Health in Business and Industry (3)

This is also an interdisciplinary graduate certificate program offered by the College of Health Professions.

*This class is a capstone for the CAT program taken after all others.

NURSING EDUCATION

Certificate: Post-Baccalaureate Program
 Director: Kathleen T. Ogle
 410-704-4389
 kogle@towson.edu

The overarching objective of the certificate is that students completing the program develop teaching and evaluation skills through a series of courses designed to facilitate the transition of a clinician to an educator in an academic or health care setting. It is an independent certificate program; however, students in the Nursing Education Certificate program will study with students selecting the Master of Science in Nursing program, Concentration B: Nursing Education. Upon completion of this 15-unit program, students may wish to pursue additional graduate study and apply these units to the M.S. degree.

Admission Requirements

Requirements for the certificate program are the same as those listed above for the M.S. in Nursing program.

Certificate Requirements

Required Courses (15 units)

NURS 610	Curriculum Development in Nursing (3)
NURS 612	Teaching and Learning in Nursing (3)
NURS 710	Evaluation in Nursing Education (3)
NURS 712	The Adult Learner (3)
NURS 810*	Teaching Practicum (3)

*The 800-level course is a capstone course taken after all others.

OCCUPATIONAL SCIENCE

Degree: Doctor of Occupational Science (Sc.D.)
 Program Director: Janet Delany
 410-704-2371
 jdelany@towson.edu

The applied doctoral degree in Occupational Science prepares graduates to teach, influence policy, and engage in applied research. Occupational science is the scientific study of human occupation related to the purposeful and meaningful activities that comprise everyday life experiences. The study of occupation involves the investigation of the relationship among the occupations, health, and life participation of individuals of all ages within the context of their families, communities, and society. The main emphasis of this interdisciplinary doctoral program is to advance education, research, and service that promote occupational engagement, social and occupational justice, and health and well-being of persons, organizations, and populations by applying knowledge gained through the promoted study of occupational science.

The doctoral degree requires the completion of at least 90 units beyond a bachelor's degree.

Admission Requirements

- A master's degree from an accredited college or university with an overall GPA of 3.25 in graduate course work. Students are eligible to request conditional admission with an overall GPA of 3.00.
- A degree or certificate in Occupational Therapy from a professional occupational therapy program accredited by the Accreditation Council for Occupational Therapy Education or by the World Federation of Occupational Therapists. A select number of students from other relevant disciplines who do not hold professional certification may apply for admission to the program and may be accepted on a limited basis.
- Proof of completion of prerequisite coursework.
- If applicant is an occupational therapist, he/she must maintain licensure to practice

occupational therapy to select the Occupation in Practice Track.

- Graduate Record Examination (minimum 900 combined math and verbal score) or Miller Analogies Test (minimum 50th percentile).
- Interview by the doctoral admissions committee.
- International students must have TOEFL scores of at least 600.

Send the following admission materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252:

- Towson University Graduate Application
- Three letters of recommendation
- Letter of intent describing professional goals in seeking the degree and area(s) of interest/specialization
- Undergraduate and/or graduate transcripts
- Copy of licensure to practice, if applicable

Prerequisite Courses

- OCTH 613 Advanced Research Methods in Occupation-Based Practice (3) (or equivalent)
- PSYC 687 Advanced Experimental Design I (3) (or equivalent)

General Requirements

1. The doctoral degree will require the completion of 90 units beyond a bachelor's degree; students who hold a master's degree in a discipline other than occupational therapy will be allowed to transfer a maximum of 30 credits from their master's degree; students who hold a master's degree in occupational therapy may transfer a maximum of 36 credits from their master's degree.
2. A program of study with a concentration in an aspect of occupation will be developed by the student in consultation with his/her adviser. This program of study is to include all planned electives. A minimum of two electives must be at the 700 level. One elective must be an additional quantitative statistics course and another must be an additional education course.
3. Evidence of prior research experience is required. Applicants who do not have

appropriate experience may be expected to take master's level research course work before beginning the doctoral program research sequence.

4. Students must register for at least one academic term of full-time dissertation research (9 units).
5. The program, including course work and dissertation, must be completed within 10 years.
6. The doctoral degree will require the passing of a comprehensive assessment after completing OCTH 611, 613 and OSC 742, 744 and 746. Students must pass the comprehensive assessment prior to enrolling in OSC 895. After successful completion, students will be "advanced to candidacy."
7. The doctoral degree will require successful defense of a dissertation proposal.
8. The doctoral degree will require successful defense of a dissertation (minimum of 12 units), involving applied research in occupational science.

Tracks

- Occupation in Practice
- Science of Human Occupation

Degree Requirements

For the most recent course, tracks and degree requirements, visit the Department of Occupational Therapy and Occupational Science Web site at www.towson.edu/ot.

Required Courses

- IDHP 741 Ethical and Legal Issues in Clinical Practice (3)
- OCTH 603 Issues in Occupational Therapy (3) or equivalent
- OCTH 604 Academic and Clinical Education (3)
- OCTH 611 Advanced Theory and Philosophy of Occupation (3)
- OSC 742 Origins and Evolution of Occupational Science (3)
- OSC 744 Participation and Quality of Life of People in Their Context (3)

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- OSC 746 Participation and Quality of Life in Communities and Populations (3)
OSC 890 Qualitative Research: Occupation and Life Narrative (3)
OSC 895 Applied Project: Everyday Life and Dimensions of Occupation (3)
OSC 997 Dissertation Research (1-9)

Electives

- OCTH 612 Occupational Therapy Health Promotion Initiatives in the Community (3)
OCTH 628 Contemporary Occupational Therapy Practice in the Community (3)
OSC 891 Independent Study in Occupational Science (3)
OSC 892 Directed Readings in Occupational Science (3)

NOTE: Earn a Graduate Certificate in Family-Professional Collaboration using elective units. See the Family-Professional Collaboration heading in the College of Liberal Arts section for more information.

OCCUPATIONAL THERAPY

Degree: Master of Science

Program Director: Sonia Lawson
(Professional Master's Degree Program)
410-704-2313
slawson@towson.edu

Program Director: S. Maggie Reitz
(Post-Professional Master's Degree Program)
410-704-2762
mreitz@towson.edu

The Master of Science in Occupational Therapy program is designed to prepare graduates to assume key roles in practice, research, education or administration. Occupational therapists' responsibilities in these roles are to assure high-quality services for client groups and to advance the practice of occupational therapy.

Incoming students must select one of two options, depending on whether or not they are

already certified occupational therapists. In the Post-Professional Master's Degree Program (for occupational therapists), students may specialize in pediatrics, gerontology, administration/supervision, education or another approved topic. In the Professional Master's Degree Program (for non-occupational therapists), in addition to required course work, students take elective course work which complements the plan of study.

Towson University also offers a Combined B.S./M.S. degree program in Occupational Therapy. For more information about this program, see the Undergraduate Catalog or contact the admissions coordinator.

NOTE: All applicants for the master's degree programs in Occupational Therapy must complete the Graduate School application and supplemental forms. Contact the College of Health Professions admissions coordinator at 410-704-2653 for questions regarding the application process.

Professional Master's Degree Program

Program Accreditation

Towson University's Professional Master's Degree Program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA) located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220. ACOTE's telephone number is 301-652-AOTA. Graduates of the program will be eligible to sit for the national certification examination for the occupational therapist, administered by the National Board for Certification of Occupational Therapy (NBCOT). After successful completion of this examination, the individual will be an occupational therapist, registered (OTR). In addition, most states require licensure to practice; however, licenses are usually based on the results of the NBCOT certification examination. (Persons convicted of felonies may be unable to sit for the Certification Examination and should inquire in advance of program entry regarding eligibility.)

Admission Requirements

- A bachelor's degree with a minimum GPA of 3.00 for full admission or a 2.50 GPA for conditional admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
- Complete the following eight admission pre-screening courses with a minimum grade of C:
 1. English Composition
 2. Introductory Sociology
 3. Introductory Psychology
 4. Abnormal Psychology
 5. Basic Statistics
 6. Human Anatomy and Physiology I with lab (taken within the last five years)
 7. Human Anatomy and Physiology II with lab (taken within the last five years)
 8. Physics (including mechanics and a lab)
- Complete and verify at least 30 hours of human service activity. (The department's supplemental form must be used.) This work or volunteer experience must have involved direct contact with people with disabilities, and/or illness, and/or other disadvantages. Examples include work/volunteer experience in hospitals, nursing homes, rehabilitation facilities, senior centers, drug rehabilitation programs, programs for the homeless, camps and/or attendant care. The following experiences do not satisfy this requirement: baby-sitting with children who do not have disabilities and administrative clerical work. All 30 hours of human service activity must have been completed within two years of the application deadline. The 30 hours must have been completed in no more than three different settings, and the applicant must have been in each setting for at least 10 hours.
- Three reference forms
- Graduate occupational therapy admission essay

Send all admission materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252.

For more information regarding admission prerequisite courses and other aspects of the application process, contact:

CHP Admissions Coordinator
Towson University
8000 York Road
Towson, MD 21252-0001
410-704-2653

Early Admission Option for Professional Master's Degree Program

Students are eligible for early admission to the Professional Master's Degree Program if they have:

- a 3.60 GPA (based on the last 60 credits of undergraduate course work)
- completed all except two of the pre-screening course requirements (all completed with a C or better)
- completed the human service activity, essay and three reference forms. Send admission materials to Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252.

Early admission is offered on a limited basis and guarantees the student a place in the next upcoming class. Students interested in this option should contact the College of Health Professions admissions coordinator or the department's professional education program director.

Academic Standards for Professional Master's Degree Prerequisite Courses

- Students must maintain a minimum GPA of 3.00 during the terms in which they are taking master's degree prerequisite courses.
- Students may receive a maximum of two C grades (including C and C+ grades) during their master's degree prerequisite course work.
- Students may repeat a maximum of two courses during their master's degree prerequisite course work.
- Students may repeat the same course only once.

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- Students may repeat a maximum of one Level II Fieldwork experience.
- Students must have a GPA of 3.00 in master's degree prerequisite course work to be eligible to enroll in OCH 535 Occupational Therapy Internship I.
- Students must have a GPA of 3.00 in master's degree prerequisite course work to be eligible to enroll in graduate course work.

Prerequisite Courses

BIOL 427	Neuromuscular Mechanisms of the Upper Body (2)
HLTH 207	Health Care in the United States (3)
OTH 211	Philosophy of Occupational Therapy (3)
OTH 213	Small Group Dynamics (3)
OTH 216	Life Span Adaptations and Occupations (4)
OTH 217	Analysis of Occupational Performance I (4)
OTH 218	Analysis of Occupational Performance II (3)
OTH 221	Clinical Kinesiology (3)
OTH 313	Adult Neurological Occupational Therapy (3)
OTH 314	Principles of Psychosocial Occupational Therapy Practice (5)
OTH 317	Adult Musculoskeletal Occupational Therapy (3)
OTH 319	Physical Dysfunction Clinical (3)
OTH 320	Psychosocial Function Clinical (3)
OTH 323	Gerontological Occupational Therapy (3)
OTH 325	Occupational Therapy Practice with Children and Youth (4)
OTH 326	Occupational Therapy Fieldwork With Children and Youth (3)
OTH 428	Occupational Therapy Organizations in Modern Society (3)
OTH 535	Occupational Therapy Internship I (6)

Degree Requirements

The Professional Master's Degree Program consists of 59 units of master's degree prerequisite courses and 36 units of required and elective graduate courses with or without a thesis (a total of 95 units of course work). All students complete two three-month, full-time internships (Level II Fieldwork*) where they apply the theoretical knowledge and skills appropriate to an entry-level qualified professional occupational therapist. Most sites for each three-month internship are in the mid-Atlantic area, but arrangements also can be made in other locations if openings are available.

*All Level II Fieldwork must be completed within 24 months of completion of academic course preparation.

*Documentation of health status, insurance, screenings, and training is required. See department Web site for more information.

Required Courses

OTH 536	Occupational Therapy Internship II (6)
OTH 603	Issues in Occupational Therapy (3)
OTH 611	Advanced Theory and Philosophy of Occupation (3)
OTH 612	Occupational Therapy Health Promotion Initiatives in the Community: Clinical (3)
OTH 613	Advanced Research Methods in Occupation-Based Practice (3)
OTH 678	Assessment Throughout the Lifespan (3)
OTH 781	Graduate Seminar in Occupational Therapy (3)
OTH 880	Graduate Project (3)
PSYC 687	Advanced Experimental Design I (3)

Electives (3-6 units)

Students who complete the project option will have 6 units of electives; those students who complete the thesis option will have 3 units of electives. Elective courses must be approved by

the department. Students cannot apply more than 9 units of 500-level graduate course work toward their degree.

NOTE: Earn a Graduate Certificate in Family-Professional Collaboration using elective units. See the Family-Professional Collaboration heading in the College of Liberal Arts section for more information.

Post-Professional Master's Degree Program

Admission Requirements

- Discuss program of study with Post-Professional Program Director.
- Possess a bachelor's degree with a minimum 3.00 GPA for full admission or a 2.50 GPA for conditional admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
- Complete an accredited entry-level professional training program in occupational therapy.
- Evidence of initial NBCOT certification via proof of passing initial Certification Examination for Occupational Therapists, Registered.
- Evidence of and maintenance of professional licensure.

Admission Criteria

Occupational therapist applicants are screened after the Graduate School receives application materials on an applicant-by-applicant basis. These applicants are admitted to the Occupational Therapy graduate program throughout the academic year. Applicants must follow the procedures outlined below:

- Submit application, transcripts and all other application materials to Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252.
- Submit three reference forms.
- Submit a graduate occupational therapy admission essay.
- Meet standards for GPA.
- Meet standards for scores on the three reference forms.

- Meet standards for scores on the admission essay.
- Submit proof of initial NBCOT certification.

Degree Requirements

The Post-Professional Master's Degree Program for Occupational Therapists consists of a total of 36 units of required and elective courses, with or without a thesis.

Required Courses

OCTH 603	Issues in Occupational Therapy (3)
OCTH 611	Advanced Theory and Philosophy of Occupation (3)
OCTH 613	Advanced Research Methods in Occupation-Based Practice (3)
OCTH 781	Graduate Seminar in Occupational Therapy (3)
OCTH 880	Graduate Project in Occupational Therapy (3)
or	
OCTH 897	Graduate Thesis (6)
PSYC 687	Advanced Experimental Design I (3)

Specialization Courses (6 units)

Students may specialize by completing 6 units in pediatrics, gerontology, administration/supervision, education or other approved topic.

Administration/Supervision

OCTH 605	Managing Human Resources in Occupational Therapy (3)
	Approved Specialty Course (3)

Gerontology

OCTH 621	Geriatric Rehabilitation (3)
or	
OCTH 678	Assessment Throughout the Life Span (3)
or	
OCTH 631	Community Gerontology (3)

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Pediatrics

- OCTH 623 Evaluation in Pediatric Occupational Therapy (3)
- or
- OCTH 678 Assessment Throughout the Life Span (3)
- OCTH 633 Occupation Based Pediatric Intervention (3)

Education

- OCTH 604 Academic and Clinical Education (3)
- NURS 712 The Adult Learner (3)

Electives (9-12 units)

Students who complete the project option will have 12 units of electives; those students who complete the thesis option will have 9 units of electives.

NOTE: Earn a Graduate Certificate in Family-Professional Collaboration with your elective units and some additional course work. Turn to page 100 for more information.

Combined M.S./S.c.D. Degree Program in Occupational Therapy/Occupational Science

The Department of Occupational Therapy and Occupational Science at Towson University offers a Combined M.S./S.c.D. degree program in Occupational Therapy/Occupational Science. For more information about the program, visit www.towson.edu/or or contact the Post-Professional Graduate Program Director, 410-704-4170.

PHYSICIAN ASSISTANT STUDIES

Degree: Master of Science
Program Director: Marcie Weinstein
410-704-4049
mweinstein@towson.edu
www.towson.edu/chp/pa

Towson University offers a Master of Science degree program in Physician Assistant Studies that is completed concurrently with completion of a certificate program in Physician Assistant Studies at the Community College of Baltimore County (CCBC). The program begins in June of each year and is 26 months in length. In a time-efficient manner, students complete the requirements to sit for the physician assistant certification examination and earn a Master of Science degree in Physician Assistant Studies. The master's degree program prepares the physician assistant to assume roles in clinical practice, health care leadership, advocacy for clients, education of others, and clinical research, as well as carrying out the other responsibilities of a physician assistant. Such roles are important for physician assistants in a variety of practice, education and administrative positions.

Students are admitted to both TU for the master's program in Physician Assistant Studies and CCBC for its Physician Assistant professional certificate program. Students will take CCBC and TU courses concurrently throughout the entire program. They must complete all program requirements at both institutions to receive the Master of Science degree and to receive the Certificate in Physician Assistant Studies from CCBC. Students may not receive either the master's degree or the certificate without completing all requirements for both. Once all requirements for both the M.S. degree and the certificate are complete, students will be able to sit for the national certification examination.

Admission Requirements

For the master's degree program, applicants must meet the following requirements for admission to the Graduate School at Towson University, which include:

- A bachelor's degree with a GPA of 3.00 for full admission, based on the last 60 college credits OR
- A bachelor's degree with a GPA of 2.75 for conditional admission, based on the last 60 college credits.

NOTE: The bachelor's degree must be completed at the time of application for best consideration. However, applicants who will complete the degree by the end of the fall term in their application year will be considered, provided the program receives verification no later than January 15 of the start year.

- Acceptance to the Physician Assistant program at CCBC
- Completion of a minimum number of documented hours of experience in a health care setting (700 hours required, 1,400 hours preferred)

NOTE: While applicants with health care experience in a health care area are preferred, patient contact or medically related experience may include:

- Clinical hours completed as part of a health care training program
- Medical or clinical research with or without patient contact
- Volunteer hospital or clinical experience
- Documented home health care experience
- Completion of prerequisite courses, with a grade of C or better: Anatomy (or A&P I) (4) Physiology (or A&P II) (4) Biochemistry (4) Microbiology (3) College-level statistics—any discipline (3)

NOTE: Applicants must have at least four prerequisite courses completed at application deadline, and the fifth must be completed by the end of the fall term in the application year. Students who have completed all courses at the time of application will be given preference. While applicants with C grades in these courses may receive consideration, those with one or more C grades in these courses will not be competitive. Essentials of Organic and Biochemistry may be substituted for Biochemis-

try; Organic Chemistry alone will not be accepted as a substitute.

- Additional requirements for international students, TOEFL score of 500 or above, official copy of transcript evaluation, copy of permanent residency card, copy of current visa and official copy of international transcript.
- Ability to perform the essential functions of a physician assistant

Application Procedures

- Applicants for this program DO NOT apply directly to Towson University or CCBC, but to the Central Application Service for Physicians Assistants (CASPA) at www.caspaonline.org.
- The program application cycle year precedes the year of admission.
- The CASPA application process opens on May 1. Applications may be made anytime after this date, and will be accepted until the September 1 CASPA deadline.
- For best consideration applications should be submitted to CASPA as early as possible.
- Applications submitted to CASPA after September 1 will not be considered.

Additionally, once the class has been filled, the program will no longer review applications even if the September 1 deadline has been met.

Degree Requirements

The master's degree program in Physician Assistant Studies requires successful completion of a minimum of 36 units from Towson University and 62 units from CCBC—Essex. A GPA of 3.00 or better overall must be obtained in the graduate courses.

Required Courses

CCBC—Essex Courses

- | | |
|----------|---|
| PAST 201 | Introduction to Medicine (2) |
| PAST 212 | Public Health and Preventive Medicine (2) |
| PAST 213 | Diagnostic Process (4) |

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PAST 214	Psychosocial Issues I (2)
PAST 216	Psychosocial Issues II (2)
PAST 217	Pathophysiology (3) PAST 230
	Diagnostic Studies I (2)
PAST 231	Diagnostic Studies II (2)
PAST 232	Diagnostic Studies III (2)
PAST 250	Introduction to Clinical
	Practicum (4)
PAST 251	Clinical Practicum I (6)
PAST 252	Clinical Practicum II (12)
PAST 253	Clinical Practicum III (3)
PAST 254	Clinical Practicum IV (11)
PAST 299	Primary Care Preceptorship (5)

Towson University Courses

PAST 601	Research Methods I (3)
PAST 602	Ethics, Issues, Trends in PA
	Practice (3)
PAST 603	Medicine I (2)
PAST 604	Medicine II (6)
PAST 605	Medicine III (2)
PAST 606	Pediatrics I (2)
PAST 607	Pediatrics II (2)
PAST 608	Medicine IV (6)
PAST 609	Pharmacology I (2)
PAST 610	Pharmacology II (2)
PAST 730	Clinical Management I (2)
PAST 731	Clinical Management II (2)
PAST 801	Physician Assistant Graduate
	Seminar (1)
PAST 802	Physician Assistant Graduate
	Project (1)

SPEECH-LANGUAGE PATHOLOGY

Degree: Master of Science

Program Director: Celia Bassich

410-704-2449

cbassich@towson.edu

The Speech-Language Pathology program is accredited by the Council on Academic Accreditation (CAA) of the American Speech-Language-Hearing Association and the Maryland State Department of Education. The program provides the student with 1) study of normal communication processes; 2) an in-depth investigation of communication disorders; 3) development of therapeutic goals, procedures and materials; and 4) extensive

clinical experience in on-and off-campus settings. The program is designed to enable pre-professionals in the field, i.e., those with a bachelor's degree or the equivalent in speech-language pathology and audiology, to meet the academic and clinical practicum requirements of national and state accrediting, certifying and licensing bodies.

The degree will prepare the individual for national/state certification and state licensure for employment in public school, clinical or hospital settings, or private practice and to pursue advanced degrees. All clinical practicum clock hour requirements of the American Speech-Language-Hearing Association (ASHA) and the Department of Audiology, Speech Language Pathology and Deaf Studies must be completed before the M.S. degree is awarded.

Admission Requirements

Students with a bachelor's degree in speech language pathology and audiology can apply to our traditional two-year program. Students must have a minimum of 26 credits of undergraduate courses in basic communication and swallowing process, communication disorders and differences and swallowing disorders. Students must have a minimum GPA of 3.00 in the major and a minimum GPA of 3.00 for the last 60 credits, and submit (a) an Application for Graduate School, (b) GRE scores, (c) three Towson University Graduate Program Personal Assessment Recommendation Forms (completed by faculty familiar with the applicant's potential for scholarly and/or clinical work and (d) a one-page single-spaced personal essay describing why you have chosen this profession.. Send to the Graduate School Office, Towson University, 8000 York Road, Towson MD 21252.

Students without a bachelor's degree in speech-language pathology and audiology have two options for entering the program:

- The Three-Year Graduate Program is designed for full-time students without a degree in speech-language pathology and audiology. Admission requirements include a bachelor's degree from an accredited college or university with a minimum GPA of 3.50 for the last 60 credits of undergraduate

and post-baccalaureate study, GRE scores (1000+), three recommendation forms from persons familiar with the applicant's potential for scholarly and/or clinical work, and a one-page personal essay describing why you have chosen this profession. Send to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252.

or

- Students who do not have a bachelor's degree in speech-language pathology and audiology and do not meet the admissions requirements for the Three-Year Graduate Program must complete a minimum of 7 of the 9 following listed undergraduate courses in speech-language pathology and audiology before applying to the Graduate School. Students interested in completing undergraduate course work at Towson University should contact the ASLD department at 410-704-2449.

SPPA 200	Anatomy and Physiology of the Auditory and Vocal Mechanism (3)
SPPA 210	Phonetics of American English (3)
SPPA 215	Speech and Language Development (3)
SPPA 302	Speech Pathology I: Phonology (3)
SPPA 304	Speech Pathology II: Language (3)
SPPA 313	Speech Science (3)
SPPA 321	Introduction to Audiology (3)
SPPA 325	Introduction to Aural Rehabilitation (3)
SPPA 416	Clinical Observations and Techniques (3)

- The American Speech-Language Hearing Association's minimum requirements for application for the Certificate of Clinical Competence includes transcript credits for course work, CLEP or advanced placement (AP) examination credits in each of the following areas: biological sciences, physical sciences, social/behavioral sciences, and mathematics. In addition to transcript credit, applicants may be required to provide further evidence of meeting these requirements.

A behavioral statistics course, or it's equivalent, fulfills the math requirement and is highly recommended. Students without these courses will have to take them as part of their graduate program.

- Speech-language pathologists must have sufficient proficiency in the English language to meet certification standards of the American Speech-Language-Hearing Association. For international students and students whose first language is not English, a TOEFL score of 600 or above is required (250 on the computer version of the TOEFL). A U.S. degree does not waive the requirement of TOEFL for this program. In addition, an interview with the graduate program director is required.
- Students are admitted for the fall term only. Completed application and admission credentials must meet the deadline of January 15.

Degree Requirements

Required Courses (48 units)

SPPA 600	Language Development and Disorders from Birth through Preschool (3)
SPPA 604	Acquired Neurogenic Language and Cognitive Disorders I (3)
SPPA 605	Acquired Neurogenic Language and Cognitive Disorders II (3)(3)
SPPA 606	Language Development and Disorders in School-Age Children (3)
SPPA 610	Phonology and Articulation (3)
SPPA 614	Fluency Disorders (3)
SPPA 620	Voice Disorders in Children and Adults (3)
SPPA 622	Diagnostic Process in Speech-Language Pathology (3)
SPPA 626	Neurologically Based Speech Disorders (3)
SPPA 628	Dysphagia (3)
SPPA 690	Clinical Practicum – On Campus (3)

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SPPA 705	Professional Issues in SPPA (1)
SPPA 710	Written Language Development and Disorders (3)
SPPA 713	Seminar: Research Design in SPPA (3)
SPPA 714	Augmentative and Alternative Communication (2)
SPPA 745	Advanced Clinical Practicum— On Campus (3)
SPPA 746	Advanced Clinical Practicum— Off Campus (3)
SPPA 747	Advanced Clinical Practicum— In Schools (3)

Electives (2 units required)

SPPA 680	Special Topics in Speech-Language Pathology (1-2)
SPPA 796	Independent Study in Speech-Language Pathology (1-3)
SPPA 897	Thesis (6)
SPPA 899	Thesis Continuum (1)

Additional Electives (0 Units Required)

SPPA 525	Aural Rehabilitation (3)
SPPA 748	Advanced Pediatric Practicum (3)
SPPA 797	Directed Readings
SPPA 798	Advanced Clinical Practicum On Campus (3)

Successful completion of a Comprehensive Examination is required before graduation.

Students may obtain information regarding the Comprehensive Examination from the program director. Students are encouraged to write a master's thesis or mentored research project paper. Those who select this option do not take the Comprehensive Examination.

Students admitted to the Three-Year Graduate Program must achieve a GPA of 3.50 or better at the end of the first year of study. Students who do not meet this criterion will be dismissed from the program.

Students must demonstrate acceptable writing skills in all clinical and academic work. Students showing weakness in this area may be advised to take a remedial writing experience in addition to their degree work.

The Department of Audiology, Speech-Language Pathology and Deaf Studies recognizes a special responsibility to the profession to ensure that graduates of master's degree programs demonstrate attitudes and behaviors consistent with the standards of the profession. Students must abide by the professional and ethical standards established by the department and by ASHA. All students must have a Criminal Background Check complete and on file in advance of beginning clinical practica. In addition, students must submit documentation of required immunizations.

THE COLLEGE OF LIBERAL ARTS

The College of Liberal Arts offers graduate programs of varying types, emphasizing the insights and traditions of academic disciplines, providing advanced training in areas of professional emphasis, and encouraging interdisciplinary perspective. Programs serve both recent graduates and working professionals seeking to advance in their fields or change careers.

These programs develop the ability of students to analyze and interpret information and opinions, to make informed judgments about complex issues, and to apply expertise in professional practice. The graduate curricula enable graduates to move comfortably in the world of ideas and values and to appreciate the rich diversity of human culture. Small classes ensure personal attention and an emphasis on writing and the refinement of professional applications. Commitment to graduate education is reflected not only in teaching excellence, but also in the scholarly activity of the faculty. They are mentors to their students, who often have the opportunity to engage in collaborative research or monitored practice. Faculty members participate annually in cooperative ventures within the urban community as well.

Many of the departments, centers and institutes of the college develop creative partnerships with public and private enterprises to ensure that the intellectual resources of Towson University serve the people of the Baltimore metropolitan area.

Terry A. Cooney, Dean

COLLEGE OFFICE
Linthicum Hall 108
410-704-2128
Fax: 410-704-6392
www.towson.edu/cia

Certificates of Advanced Study (post-master's)

Counseling Psychology
School Psychology

Master's Degree Programs

Child Life Administration and Family
Collaboration

Geography and Environmental Planning
Humanities

Human Resource Development

(See Interdisciplinary Programs section)

Professional Studies

(See Interdisciplinary Programs section)

Professional Writing
Psychology

- Clinical
- Counseling
- Experimental
- School

Social Science

Women's Studies

Post-Baccalaureate Certificate Programs

Family-Professional Collaboration

Management and Leadership Development

Women's Studies

CHILD LIFE, ADMINISTRATION AND FAMILY COLLABORATION

Degree: Masters of Science

Program Directors:

Lisa A. Martinelli Beasley

410.704.3766

lmartinelli@towson.edu

Patricia Williams

410.704.4871

pwilliams@towson.edu

The Master of Science program in Child Life, Administration and Family Collaboration provides advanced education for Certified Child Life Specialists (CCLS) currently working in the field and for those students seeking CCLS certification. This program has a broad scope of curriculum that not only engages students from the eyes of a child life specialist through applied research, but also focuses on family collaboration and prepares students for management and administrative positions.

The program is a 39-40 credit hour program. Upon completion of this program, students will have earned a graduate degree that includes coursework related to Child Life, a Post-Baccalaureate Certificate in Family-Professional Collaboration as well as a Post-Baccalaureate Certificate in Clinician-Administrator Transition. The curriculum design of this graduate program is intended for students who are interested in pursuing graduate study in Child Life at the entry level as well as practicing Certified Child Life Specialists returning to school to advance their clinical, research and professional knowledge and skills through a graduate degree.

Admission Requirements

- Bachelor's degree in Family Studies, Health Science, Human Services, Human Development, Psychology, Sociology, or other related discipline.
- Completion of the following classes with a "C" or better:
 - English composition, upper level
 - Human Development Across the Life Span, lower level

- Infant, Child and Adolescent Development, 3 courses, 9 credits upper level
- Biological Science, 1 course
- Research Methods, 1 upper level course
- Four upper level classes in the following areas:
 - Psychology, Sociology, Education, Death and Dying, Expressive Therapies
- Admission essay
- Completion of 40 hours of volunteer work or paid work experience with children with special health care needs

Degree Requirements

For those who are not Certified Child Life Specialists, 40 Credits in the following areas:

Child Life Specific Course work (13 units):

- | | |
|----------|--|
| FMST 540 | Hospitalized Child and Family (3) |
| FMST 545 | Introduction to Art Therapy (3) |
| FMST 597 | Advanced Internship (4) |
| FMST 640 | Medical Aspects of Illness: A Child Life Perspective (3) |

Family Professional Collaboration Course work (12 units):

- | | |
|----------|---|
| FMST 615 | Applied Research Methods in Family Science (3) |
| FMST 601 | Applied Family Relationships (3) |
| FMST 610 | Family Professional Collaboration (3) |
| FMST 620 | Project in Family Focused Program Development (3) |

Clinician to Administrator Transition Course work (15 units):

- | | |
|-----------|--|
| IDHP 600 | Transitions: Health Care Professionals in a Changing Environment (3) |
| IDHP 605 | Managing Health Care Professionals (3) |
| IDHP 610 | Administration of Health Care Organizations (3) |
| IDHP 647/ | Health Care Financial |
| HLTH 647 | Management (3) |

- IDHP 651/ Planning and Marketing
 HLTH 651 Health in Business and
 Industry (3)

For those who are Certified Child Life Specialists, 39 Credits in the following areas:

**Child Life Specific Course work
 (6 units):**

- FMST 545 Introduction to Art
 Therapy (3)
 FMST 640 Medical Aspects of Illness: A
 Child Life Perspective (3)

**Family Professional Collaboration
 Course work (12 units):**

- FMST 615 Applied Research Methods in
 Family Science (3)
 FMST 601 Applied Family
 Relationships (3)
 FMST 610 Family Professional
 Collaboration (3)
 FMST 620 Project in Family Focused
 Program Development (3)

**Clinician to Administrator Transition
 Course work (15 units):**

- IDHP 600 Transitions: Health Care
 Professionals in a Changing
 Environment (3)
 IDHP 605 Managing Health Care
 Professionals (3)
 IDHP 610 Administration of Health Care
 Organizations (3)
 IDHP 647/ Health Care Financial
 HLTH 647 Management (3)
 IDHP 651/ Planning and Marketing
 HLTH 651 Health in Business and
 Industry (3)

**Graduate Project/ Thesis Option I or II
 (6units):**

Option I:

- FMST 880 Graduate Project in Family
 Studies (3)
 Elective- Child Development, Education or
 Health Care Management
 (Department approval
 required) (3)

Option II:

- FMST 897 Thesis in Family Studies (6)
 or
 FMST 898 Thesis in Family Studies (3) -
 taken twice over two semesters
 FMST 899 Thesis Continuation (1) - taken
 as many times as needed if the
 thesis is not finished in the first
 6 units

**FAMILY-PROFESSIONAL
 COLLABORATION**

Certificate: Post-Baccalaureate
 Program Director: Karen Goldrich Eskow
 410-704-5851
 keskow@towson.edu

The Post-Baccalaureate Certificate Program in Family-Professional Collaboration is an interdisciplinary graduate program that was designed to enhance the education and subsequent practice of professionals working in school, health and community settings. A focus on family-professional relationships has evolved into an important area of competency for educators, related school personnel and practitioners in health care and community agencies. The courses within the program prepare individuals for the application of principles of family-based practice in their own professional work. Individuals already employed in disciplines such as psychology, sociology, education and health care will advance their knowledge of and research skills in family-related areas of study. The program is especially beneficial for professionals who need to enhance skills related to implementation of public laws and policies that mandate active involvement of families in the development of education and health care plans for children with special needs.

The interdisciplinary design of the program allows students to benefit from a carefully designed sequence of study that uses case study research, needs assessment and program development to understand and enhance collaboration with families in the community.

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The program's flexibility makes it ideal to accommodate the demands of a working professional's schedule. The curriculum design is intended to work with existing master's degree programs. The certificate may also be earned as a stand-alone for those not wishing to pursue a master's degree. Many graduate programs that offer up to 9 units of electives can integrate this graduate certificate to enhance a professional's credentials. This program can be completed in one to two years.

Admission Requirements

- A baccalaureate degree.
- An undergraduate GPA minimum of 3.00 (2.50 for conditional admission) in either the cumulative units of the degree or the last 60 credits of the degree. An admission exception policy is in place for eligible candidates with undergraduate degrees obtained at least 10 years ago.
- A resumé sent to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252.
- An interview with the program director.

Certificate Requirements (15 units)

- FMST 601 Applied Family Relationships (3)
- FMST 610 Family-Professional Collaboration (3)
- FMST 615 Applied Research Methods in Family Science or Other Approved Research Methods Course (3)*
- FMST 620 Project in Family Focused Program Development (3)
- 500-700-level Elective (3) *

*Other courses must be approved by the program director.

Course must be approved by the program director.

Programs that may be well suited to integrate the graduate certificate in Family-Professional Collaboration, within their 9 units of electives, include:

- Applied Gerontology
- Elementary Education
- Human Resource Development

- Professional Studies
- Nursing (Community-based)
- Occupational Science
- Occupational Therapy (post-professional occupational therapists)
- Reading
- Secondary Education
- Women's Studies

Programs that may be well suited to integrate the graduate certificate in Family-Professional Collaboration, with some additional coursework, include:

- Clinical Psychology
- Counseling Psychology
- Early Childhood Education
- Health Science
- Occupational Therapy (professional master's degree)
- School Health Education
- School Psychology
- Social Science
- Special Education
- Teaching (M.A.T.)
- Nursing

GEOGRAPHY AND ENVIRONMENTAL PLANNING

Degree: Master of Arts

Program Director: Virginia Thompson
410-704-4371

vthompson@towson.edu

The program prepares graduates for a variety of geographically oriented applied positions in private business and government agencies and for doctoral programs. The program develops a broad knowledge of physical and human geography as well as the ability to analyze and synthesize spatial data and information from a number of fields.

The Master of Arts in Geography and Environmental Planning has two tracks: Track 1 – General Geography, and Track 2 – Environmental Geography and Planning. Each track has a thesis and non-thesis plan. Students in the Environmental Geography and Planning Track must select at least one-half of their electives from planning, spatial analysis or techniques courses.

The Department of Geography and Environmental Planning also offers combined bachelor's-master's programs. Information on these is provided below.

Admission Requirements

- A bachelor's degree with a minimum of 9 units in geography, with at least a 3.00 average in all geography courses.
- A minimum undergraduate GPA of 3.00 is required for full admission to the program, and 2.50 is required for conditional admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.

Send the following admission Materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252:

- Two letters of recommendation. These should include both the Recommendation Form found in the Graduate School Application Packet and a narrative letter.
- A short essay discussing career goals and how our program will help you attain them.

Degree Requirements

- All degree candidates must meet with their academic advisers to file intended programs of study. This should be done prior to, or during, the first term of course work. The program can be amended in consultation with the adviser.
- Successful completion of GEOG 375/516 Quantitative Methods in Geography, or an approved equivalent, plus at least one other approved course in computer techniques, statistics or mathematics. This may be completed prior to admission to the program.
- All graduate students must complete the following core courses, preferably during the first year of graduate study: GEOG 601 (Seminar on Geographical Perspectives) and GEOG 621 (Research Techniques)
- One 600-level human geography seminar. This does not include planning or techniques courses.
- One 600-level physical or environmental geography seminar. This does not include planning or techniques courses.

Plan A: Master of Arts with Thesis (minimum 36 units)

- Required courses (12 units)
- GEOG 898 Thesis (6 units)
- Elective courses (18 units)

Plan B: Master of Arts without Thesis (minimum 36 units)

- Required courses (12 units)
- Elective courses (24 units)
- Graduate research paper. Students should work closely with a member of the graduate faculty on independent research and then present the paper to the graduate faculty. If the paper is judged unacceptable, the student may re-present the paper at a later date set by the faculty.

COMBINED BACHELOR'S-MASTER'S PROGRAMS

The Department of Geography and Environmental Planning has combined bachelor's and master's programs that allow students to complete their undergraduate and graduate degrees in five years. Students enrolled in these programs may follow one of three tracks: 1) Global Skills 2) Environmental Geography and Planning or 3) General Geography.

All students enrolled in the graduate program must demonstrate proficiency in research. The Global Skills track is a non-thesis track. Students enrolled in either the Environmental Geography and Planning or General Geography track may choose the thesis or non-thesis option. All non-thesis students must complete a final research paper.

Admission Requirements

- Students may apply for this program during the first term of their junior year. Transfer students must have completed a minimum of two terms as full-time students at Towson University.
- Students may begin the program once they have completed a minimum of 75, but no more than 96, credits in their undergraduate program.

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- A minimum undergraduate GPA of 3.25 overall and in the major, at the time of application, is required for full admission to the program. All GPA calculations for admission are based upon the last 60 credits of undergraduate study.
- Students who are ineligible to participate in or who withdraw from the combined degree program cannot double-count any courses for both bachelor's and master's degrees.
- Students who are ineligible to participate in or who withdraw from the combined degree program must complete GEOG 401 to complete the undergraduate degree.

Combined Bachelor's–Master's Degree Requirements (minimum 33 units)

- Nine units taken at the 500 and 600 levels during the senior year will be counted toward fulfilling the 33 units.
- Bachelor's degrees will be awarded after all the degree requirements for the bachelor's are met, which should normally be at the end of the fourth year.
- GEOG 601 will fulfill the GEOG 401 requirement for the undergraduate portion of the course if the student successfully completes both degrees.
- Elective courses to meet a minimum of 33 units.

Required Courses for Global Skills Track (9–12 units)

- GEOG 601 Seminar on Geographic Perspectives (3 units)
- GEOG 621 Research Techniques (3 units)
- GEOG 796 Internship in Global Skills (3–6 units). Students will present a paper based on their internship to the graduate faculty for review. If the paper is judged unacceptable, the student may re-present the paper at a later date set by the faculty.

Withdrawal and Ineligibility

- Students may withdraw by informing the chair and graduate program director in writing.
- Students who complete the bachelor's but decide not to continue with the M.A. program will terminate their program with the fulfillment of all the requirements of the bachelor's degree.
- Students who do not follow the approved plan of graduate work may become ineligible to participate in the combined program. If a student becomes ineligible, the Geography graduate director will inform the student in writing.

HUMANITIES

Degree: Master of Arts

Program Director: H. George Hahn II

410-704-5198

ghahn@towson.edu

The Master of Arts in Humanities provides advanced study in four disciplines of the humanities. The program benefits both teachers and other post-baccalaureate students seeking intellectual fulfillment or professional advancement.

Unlike the traditional master's degree that specializes in just one area, the Master of Arts program in Humanities bridges four disciplines of the liberal arts: philosophy and religious studies, literature, history and rhetoric. It seeks to establish context and connections, linking significant texts with their intellectual and historical backgrounds from the perspectives of the disciplines of the program. Each course in the core engages texts in English from four epochs of Western civilization: the Ancient, Medieval, Renaissance and Modern. Housed in the College of Liberal Arts, the program draws on the faculty of the departments of Philosophy and Religious Studies, English, History and Foreign Languages. Its structure has three related parts: (I) Core Texts, (II) Contexts and Connections and (III) Thesis or Anthology Options.

Admission Requirements

- A baccalaureate degree
- GPA of 3.00 (last 60 undergraduate credits)

Send the following admission materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252:

- A statement of intent (500 words)

- A research paper in any discipline
- Two letters of recommendation

Transfer Credit

With the approval of the program director, students may apply 6 transfer credits with the grade of B or better to the elective requirements of the program only.

Degree Requirements

The Master of Arts in Humanities requires completion of a 36-unit program of study: 18 units of a core curriculum, 12 units of elective study and 6 units of thesis or course options. Students must have the approval of the program director before registering for any course to count for the humanities degree.

Required (18 units)

Students must complete six 3-unit courses from the following core areas: the Humanities and Philosophical Inquiry HUMA 616-630 (one course); the Humanities and Historical Inquiry HUMA 631-645 (two courses); the Humanities and Comparative Literary Inquiry HUMA 601-615 (two courses); and the Humanities and the Rhetorical Tradition HUMA/PRWR 611 (one course).

Electives (12 units)

Students may take courses from approved offerings in the four participating departments (English, History, Foreign Languages, Philosophy and Religious Studies) and, with permission of the program director, from two approved courses in theatre, music or art history in the College of Fine Arts and Communication.

Thesis or Anthology Options (6 units)

Students will select one of the following options:

- Thesis and defense

or

- Two approved courses from the home departments and presentation of a bound anthology of an introductory chapter and revised major seminar papers after consultation with a mentor.

The thesis or anthology must be submitted to the director by the seventh week of the term that the student plans to graduate.

HUMAN RESOURCE DEVELOPMENT

Degree: Master of Science
Professional Track Program
Director: Alan Clardy
410-704-3069
aclardy@towson.edu

The Master of Science in Human Resource Development (HRD) is an interdisciplinary program designed to provide students with specific knowledge and practical skills within a variety of human resource fields. The curriculum is designed to meet the needs of individuals with varied academic backgrounds and professional experience. The program emphasizes the application of theory and research to practical human resource issues within business, government, nonprofit organizations and education.

The Professional Track in HRD is designed for individuals seeking to enter the human resource field, mid-career professionals seeking opportunities for professional development and career advancement, working adults seeking a career change, and recent undergraduates who wish to pursue graduate study. Applicants do not need prior work experience in human resources to be eligible for admission.

Admission Requirements

- No specific undergraduate major is required.
- The minimum GPA required for admission is 3.00. Students who have a minimum GPA of 2.80 may be considered for admission.

Send the following admission materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252:

- Two letters of recommendation are required from individuals who can attest to the applicant's academic background, professional experience and/or personal qualities.

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- A three-to four page essay (double-spaced) that includes: 1) your reason for pursuing the degree and desired emphasis of study; 2) your past work and/or volunteer experiences; 3) yourself as a learner, including what learning activities you undertake outside of or since your undergraduate study; 4) your expectations for graduate study; 5) your projected career goals. The essay must be an original sample of the applicant's writing proficiency.

Degree Requirements

Students must take a minimum of 36 units as prescribed in their program and selected in consultation with the adviser.

Required Courses (18 units)

Students must successfully complete these six courses:

HRD 601	Introduction to Human Resources (3)
HRD 605	Applied Research in Human Resource Development (3)
HRD 606	Organizational Behavior (3)
HRD 607	Managing Organizational Change (3)
HRD 627	Training and Development (3)
HRD 699	Capstone in HRD (3)

Electives (12-18 units)

Students must take a minimum of 12 units (4 courses), up to a maximum of 18 units (6 courses) from the following:

HRD 629	Staffing, Recruiting and Selection (3)
HRD 630	Compensation and Benefits Management (3)
HRD 640	Leadership Theory and Practice (3)
HRD 643	Administrative Theory and Practice (3)
HRD 644	Group Dynamics and Team Building (3)
HRD 646	Conflict Management and Negotiation: Theory and Practice (3)
HRD 650	Wellness in the Workplace (3)
HRD 679	Special Topics in Human Resource Development (3)

HRD 695	Independent Study (3)
HRD 696	Internship in Human Resource Development (3)
ISTC 702	Educational Leadership and Technology (3)
ISTC 667	Instructional Development (3)
ISTC 667	Instructional Development (3)

Students can complete the 36-unit requirement of the program by selecting from courses provided in other programs and departments. Prior written approval from the director of the Professional Track program is required.

PROFESSIONAL WRITING

Degree: Master of Science

Program Director: Geoffrey Becker

410-704-5196

gbecker@towson.edu

The program provides advanced study in the theory of writing, writing techniques and style, principles/techniques of editing, and the functions of written communication within the professional/occupational setting. The program centers on 1) developing the communication skills of people seeking to enter or to advance in occupations requiring extensive written analysis and reporting of data and 2) improving written communication and its management in professional organizations. The program features two concentrations. Writing for the Public and Private Sectors provides experience in writing for a wide range of occupations. Writing in the Professions offers tracks in biomedical writing, teaching writing, journalistic writing, scientific writing and creative writing.

Admission Requirements

- A 3.00 is required for full admission, and 2.50 for conditional admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
- Based upon the applicant's undergraduate transcript and the writing sample, the department reserves the right to require two specified preparatory undergraduate writing

courses, passed with the grade of B or higher in each course, for admission.

Send the following admission materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252:

- Two letters of recommendation, preferably letters that speak to writing experience and capability. Use the Recommendation Form found in the Graduate School application packet.
- Writing sample on a designated topic. Information on the writing sample and topic should be obtained from the Department of English.

NOTE: Upon admission to the program, the student must meet with the assigned adviser to plan a program of study.

Degree Requirements

Required Courses (18 units)

- PRWR 611 Rhetoric: The Pursuit of Eloquence (3)*
 PRWR 612 Rhetorical Grammar (3)
 PRWR 613 Theory of Exposition (3)
 PRWR 615 History and Development of Prose Style (3)
 PRWR 617 Editing (3)
 PRWR 797 Internship in Professional Writing (3)

*Biomedical or technical writing students may substitute PRWR 627 Modern Rhetoric (3).

Portfolio

Satisfactory completion of a written master's degree portfolio. The portfolio must be submitted between completion of 12 to 18 units of degree work, and may be resubmitted once. A second failure results in dismissal from the program.

Electives (18 units)

In addition to the required core, each student completes an 18-unit elective program from Writing for the Public and Private Sectors or Writing in the Professions. Each concentration has a thesis and non-thesis option.

Writing for the Public and Private Sectors Concentration

Thesis Option

PRWR 897 Thesis (6)
and 12 units of electives from the following courses:

- PRWR 619 Communication in the Profit/Nonprofit Sectors (3)
 PRWR 621 Business Writing (3)
 PRWR 623 Technical and Scientific Writing (3)
 PRWR 625 Design, Layout and Production (3)
 PRWR 627 Modern Rhetoric (3)
 PRWR 641 Theory of Creativity (3)
 PRWR 660 Semiotics for the Professional Writer (3)
 PRWR 670 Topics in Writing (3)
 PRWR 705 Writing Creative Nonfiction (3)
 PRWR 713 Freelance Writing (3)
 PRWR 729 Corporate Communications Consulting (3)
 PRWR 730 Writing Reviews (3)
 PRWR 731 Science and its Public Audience (3)
 PRWR 795 Independent Study in Writing (3)

Non-Thesis Option

Students select 18 units of electives from the courses listed above.

Writing in the Professions Concentration

Thesis Option

PRWR 897 Thesis (6)
and 12 units selected from courses in the specialization.

Non-Thesis Option

Students take 18 units in the specialization.

Tracks

Biomedical Writing (18 units)

Students are to take each of the following courses:

- PRWR 623 Technical and Scientific Writing (3)
 PRWR 6XX Introduction to Biomedical Writing (3)
 PRWR 6XX Biomedical Writing for General Audiences (3)
 PRWR 6XX Ethical Issues in Biomedical Writing (3)

One of the following:

- BIOL 6XX Biostatistics, Data Analysis and Interpretation (3)
 MATH 532 Mathematical Statistics (3)

One of the following:

- IDHP 651/ Planning and Marketing
 HLTH 651 Health in Business and Industry (3)
 HLTH 639 Introduction to Health Behavior and Health Promotion (3)
 PRWR 691 Research in Professional Writing (3)
 PRWR 731 Science and its Public Audience (3)

Technical Writing and Information Design

PRWR Core: Students choosing this track may substitute PRWR 627 Modern Rhetoric (3) for PRWR 611 Rhetoric: The Pursuit of Eloquence (3).

In addition to PRWR core, students take the following four required courses:

- PRWR 623 Technical Writing and Information Design
 PRWR 628 Designing Content for the Web (3)
 PRWR 637 Creating Online Help (3)
 PRWR 655 Applied Research for Information Design (3)

Students electing the thesis option then take PRWR 897 Thesis (6). Students electing the non-thesis option take two electives selected from the list below:

- AIT 600 Information Technology Infrastructure (3)
 AIT 610 System Development Process (3)
 AIT 628 IT and Business Strategy (3)
 AIT 630 IT Project Management (3)
 ART 610 Elements of WWW Design (3)
 ART 641 Multimedia Concepts (3)
 ISTC 541 Foundations of Instructional Technology (3)
 ISTC 663 Applied Psychology of Learning (3)
 ISTC 667 Instructional Design and Development (3)
 PRWR 621 Business Writing (3)
 PRWR 625 Design, Layout and Production (3)
 PRWR 6xx Introduction to Biomedical Writing (3)
 PRWR 731 Science and its Public Audience (3)

Teaching Writing (18 units)

Choose 9-18 units from the courses listed below. If fewer than 18 units are selected from these courses, the remaining units are chosen from the list of general elective courses at the end of this section.

Required Courses

(consult with Teaching Writing adviser)

- SCED 603 Teaching Writing Across the Curriculum (3)

or

- SCED 605 Theory, Research and Practice in Teaching Composition (6)
 (by invitation only)

or

- SCED 558 Writing as a Learning Tool in the Secondary School (3)

Electives

- EDUC 661 Responding to and Evaluating Writing (3)

- EDUC 665 Practicum in Writing Instruction (3)
 EDUC 667 Writing as Thinking (3)
 EDUC 785 Research in the Teaching of Writing (3)
 EDUC 761 Introduction to Research in Education (3)
 PRWR 633 Teaching College Composition (3)

Teaching College Writing (18 units)

Choose 9-18 units from the courses listed below. If fewer than 18 units are selected from these courses, the remaining units are chosen from the list of general elective courses at the end of this section.

Required Courses

- PRWR 621 Business Writing (3)
or
 PRWR 623 Technical and Scientific Writing (3)
 PRWR 633 Teaching College Composition (3)
 PRWR 797 Internship in College Teaching (3)*

*Or the equivalent. Students who have experience teaching at the college level or who have other comparable experience may apply to the MPW director for a waiver of this requirement. Students who wish additional experience in the classroom may elect to take a tutoring/observation/teaching practicum before enrolling in Internship in College Teaching.

Electives

- PRWR 627 Modern Rhetoric (3)
 PRWR 641 Theory of Creativity (3)
 PRWR 660 Semiotics for the Professional Writer (3)
 PRWR 6xx Language and Ideology (3)
 PRWR 6xx Poetics (3)
 PRWR 705 Writing Creative Nonfiction (3)

Journalistic Writing (18 units)

Choose 9-18 units from the following:

- MCOM 507 Writing for New Media (3)
 MCOM 5xx Literary Journalism (3)
 MCOM 601 Media Writing (3)

- MCOM 603 Criticism in Mass Media (3)
 MCOM 621 Mass Media Law and Regulations (3)
 MCOM 635 Journalism Ethics (3)
 MCOM 651 Media and Politics (3)
 MCOM 670 Special Topics in Mass Communication (3)
 MCOM 713 Freelance Writing (3)
 MCOM 715 Specialized Reporting (3)
 MCOM 781 Internship in Journalism (3)
 MCOM 795 Independent Study in Mass Communication (3)
 MCOM 880 Graduate Project in Mass Communication (3)

If fewer than 18 units are selected from these courses, the remaining units are chosen from the following courses:

- PRWR 625 Design, Layout and Production (3)
 PRWR 670-679 Special Topics in Writing (3)
 PRWR 705 Writing Creative Nonfiction (3)
 PRWR 713 Freelance Writing (3)
 PRWR 730 Writing Reviews (3)
 PRWR 731 Science and its Public Audience (3)

Scientific Writing (18 units)

- PRWR 623 Technical and Scientific Writing (3)

and 6 units from:

- PRWR 660 Semiotics for the Professional Writer (3)
 PRWR 670 Topics in Writing (3) (when applicable)
 PRWR 729 Corporate Communications Consulting (3)
 PRWR 731 Science and its Public Audience (3)
 PRWR 795 Independent Study in Writing (3)

9 units from the following departments: biology, chemistry, computer science, mathematics, physics or psychology.

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The scientific writing specialization does not offer a thesis option.

Creative Writing (18 units)

Choose 9-18 units from the courses listed below. If fewer than 18 units are selected from these courses, the remaining units are chosen from the list of elective courses at the end of this section.

- PRWR 641 Theory of Creativity (3)
- PRWR 647 Writing Poetry (3)
- PRWR 651 Writing Short Fiction (3)
- PRWR 653 Writing the Novel (3)
- PRWR 670 Topics in Writing (3)
(when applicable)
- PRWR 705 Writing Creative
Nonfiction (3)
- PRWR 795 Independent Study in
Writing (3)
- PRWR 897 Thesis (6)

Electives

Up to three of the following courses may be elected by students to supplement their work in any special application except scientific writing.

- PRWR 619 Communication in the Profit/
Nonprofit Sectors (3)
- PRWR 621 Business Writing (3)
- PRWR 623 Technical and Scientific
Writing (3)
- PRWR 625 Design, Layout and
Production (3)
- PRWR 627 Modern Rhetoric (3)
- PRWR 660 Semiotics for the Professional
Writer (3)
- PRWR 670 Topics in Writing (3)
- PRWR 705 Writing Creative
Nonfiction (3)
- PRWR 713 Freelance Writing (3)
- PRWR 729 Corporate Communications
Consulting (3)
- PRWR 730 Writing Reviews (3)
- PRWR 731 Science and its Public
Audience (3)
- PRWR 795 Independent Study in
Writing (3)

PSYCHOLOGY

Degree: Master of Arts
Vice Chair, Graduate Programs in
Psychology: Susan Bartels
410-704-3070
sbartels@towson.edu

The program offers students the opportunity for in-depth specialization in one of four psychological areas. The tracks are: Clinical Psychology, Counseling Psychology, Experimental Psychology and School Psychology. Each is described below in detail with reference to objectives and requirements. All program prerequisite courses are undergraduate courses.

The faculty in the Department of Psychology recognizes a special responsibility to the profession of psychology to ensure that all graduates of the program demonstrate attitudes and behavior consistent with the standards of the profession. The faculty of the specialization involved may recommend to the program director remedial or disciplinary action for such behavior as dishonesty, unethical conduct or other behaviors construed by the faculty as counterproductive to the field of psychology. Students have the right to appeal any action according to the procedures outlined in this catalog.

Students who complete one of the Master of Arts in Psychology tracks are prepared to enter a variety of professions as well as pursue post-master's and doctoral studies.

CLINICAL PSYCHOLOGY

Program Director: Elizabeth C. Katz
410-704-3072
ekatz@towson.edu

The Clinical Psychology Track of the Master of Arts in Psychology is designed for students seeking training and experience in the applied professional aspects of clinical psychology. Although a number of graduates go on for further graduate study in psychology, the primary focus of the program is the preparation of master's-level psychologists for employment in state and other nonprofit organizations.

Because of the applied professional emphasis, the majority of required clinical courses address the theoretical and practical issues involved in providing direct clinical services. Students take courses in psychotherapy and behavior change, preparing them to practice individual, family and group intervention techniques. Advanced seminars in legal and ethical issues in clinical psychology and cognitive-behavior therapy are offered regularly. Professional courses in psychological testing prepare students to administer and interpret psychometric instruments used to conduct intellectual, neurological and personality assessments. In keeping with the professional emphasis of the program, all courses are limited to no more than 16 students and are open only to students matriculating in the clinical psychology program.

A unique feature of the track is the requirement for successful completion of a half-time, nine-month internship during which students provide supervised psychological services to clients in an off-campus mental health setting. During the internship year, students can specialize by working primarily with adults, families or children in either an in-patient or outpatient facility. Among the internship placement sites are: community mental health centers and clinics, state psychiatric hospitals, and other psychological service centers.

Students may choose either the thesis or non-thesis option. A minimum of 39 units are required for the degree without the thesis or 42 units with the thesis. Clinical psychology students are encouraged to attend full time so as to complete all program requirements within four terms. Students may, however, attend part time for some or all of their degree work.

Admission Requirements

- Courses in the following areas:
General Psychology (3)
Abnormal Psychology (3)
Personality (3)
Behavioral Statistics (3)

NOTE: These courses cannot be used to meet part of the formal elective requirements for the degree as defined below.

- A minimum undergraduate GPA of 3.00 for full admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
- Acceptable performance on the General Test of the Graduate Record Examination. Applicants are encouraged, but not required, to take the Psychology Subject Test of the GRE.
- An interview with the program director of the clinical psychology program.

Send the following admission materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252:

- Two letters of recommendation. Use the Recommendation Form found in the Graduate School application packet.
- A personal statement, not to exceed four double-spaced pages, addressing the applicants' reasons for pursuing a master's degree in Clinical Psychology, their area of clinical and/or research interest, and their professional goals.

Students are admitted to the Clinical Psychology program for the fall term only. Those wishing to begin graduate work in the fall must have their completed application and all admission credentials submitted to the Graduate School by January 15. Admission is granted on a competitive, space-available basis.

Prospective applicants are encouraged to visit the clinical psychology Web site at www.towson.edu/clinicalpsych.

Degree Requirements

Students complete required prerequisite courses.

Plan A: Master of Arts with Thesis (minimum 42 units)

Required Courses

PSYC 620	Assessment of Intelligence (3)
PSYC 631	Advanced Abnormal Psychology (3)
PSYC 653	Research Issues in Clinical Psychology (3)

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- PSYC 665 Psychotherapy and Behavior Change I (3)
PSYC 666 Psychotherapy and Behavior Change II (3)
PSYC 697 Practicum in Clinical Psychology (3)
PSYC 765 Personality Assessment in Clinical Psychology (3)
PSYC 766 Advanced Personality Assessment in Clinical Psychology (3)
PSYC 790 Ethical, Legal and Professional Issues in Psychology (3)
PSYC 797 Internship in Clinical Psychology (3)
PSYC 897 Thesis (6)

Electives

Six units of courses are elected by the student from within or outside the field of psychology to complement the program of study. Prior written consent of the clinical director must be obtained.

NOTE: Earn a Graduate Certificate in Family-Professional Collaboration with your elective units. See the Family-Professional Collaboration heading in the College of Liberal Arts section for more information.

Plan B: Master of Arts without Thesis (minimum 39 units)

- Required courses are identical to those in Plan A except for thesis.
- Electives (9 units)
- All students must obtain the grade of B or higher in PSYC 697 Practicum in Clinical Psychology and PSYC 797 Internship in Clinical Psychology. Students earning a grade lower than B in either course may repeat that course no more than one time. Failure to earn a B or higher in both courses will result in dismissal from the program.

NOTE: The practicum and internship carry with them a residency requirement of two terms. The student must be available for a 16-hour per week placement in a clinical setting.

COUNSELING PSYCHOLOGY

Program Director: Christa K. Schmidt
410-704-3063
ckschmidt@towson.edu

The overall focus of the Counseling Psychology Track of the Master of Arts in Psychology is to train individuals to facilitate growth and development for persons with mental health problems and problems with living. This track is intended for persons wishing to counsel clients with concerns in the personal, social, vocational or educational areas.

Graduates of the Counseling Psychology Track of this program may find employment in a variety of settings, such as community mental health centers, hospitals, group homes, rehabilitation centers and substance abuse programs.

Students are encouraged to attend full time to meet the program requirements in two years. Students may, however, attend part time for some of their degree work. Some courses are offered during the summer session.

Admission Requirements

- Students must have taken the following pre-requisites (all of which must be completed with a C or better):
 - General Psychology (3)
 - Behavioral Statistics (3)
 - Research Methods (3)
 - Abnormal Psychology (3)
- A minimum undergraduate GPA of 3.00 is required for full admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
- An undergraduate transcript from all colleges attended must be sent to the graduate school.
- Acceptable performance on the Graduate Record Examination (GRE).
- The highest-ranking applicants will be required to interview with the faculty of the Counseling Psychology program.

Send the following admission materials to the Graduate School Office, Towson University,

8000 York Road, Towson, MD 21252:

- Three letters of recommendation. Use the Recommendation Form found in the Graduate School Application Packet.
- A letter of intent indicating why the applicant is interested in pursuing a graduate degree in Counseling Psychology.

Completed applications and admission credentials must meet the deadline of January 15 for fall term admission. Applications are not accepted for spring term admission.

Degree Requirements

Students must complete prerequisite courses. Students should be prepared to take at least two years to complete the program.

The Master of Arts in Counseling Psychology offers a practitioner track and a thesis/research track from which degree candidates can choose.

The M.A. in Counseling Psychology Research track provides students the experience, knowledge and skills required for successful Ph.D. program admission. Students in this track receive intensive training and mentorship in research.

Students in the practitioner track of the M.A. Counseling Psychology program are trained to work as counselors and therapists at the master's level. Graduates of the practitioner track may choose to continue their education or pursue licensure at the master's level. Both tracks include 48 units.

Required Courses

PSYC 605	Basic Counseling Techniques (3)
PSYC 606	Career Development (3)
PSYC 607	Applied Counseling Theories (3)
PSYC 609	Advanced Counseling Techniques (3)
PSYC 611	Developmental Psychology (3)
PSYC 615	Research Methods (3)
PSYC 647	Individual Appraisal (3)
PSYC 631	Advanced Abnormal Psychology (3)
PSYC 721	Group Counseling (3)

PSYC 722	Advanced Multicultural Counseling (3)
PSYC 745	Practicum in Counseling (3)
PSYC 790	Ethical, Legal and Professional Issues (3)
PSYC 793	Internship (3)

Practitioner Track Courses

PSYC 613	Community Counseling (3)
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Electives (6 units)

NOTE: Electives selected by students must have prior written consent of the adviser and must be approved for the student's program of study.

Research Track Courses

PSYC 687	Advanced Experimental Design (3)
PSYC 897	Thesis Credits (6)

Field Experiences

This program includes field experiences in the form of practicum and internship. These clinical experiences are part of the requirements necessary for certification or licensure in the state of Maryland.

Practicum: During the second year of the program, concurrent with other course work, students enroll in a term-long practicum course. The course involves 240 clock hours (16 hours a week) in a setting where students provide counseling under the supervision of a licensed mental health professional. Practicum also involves attendance and participation in a required weekly class on campus. The practicum placements are arranged by the coordinator of clinical training in consultation with the student and available licensed supervisors. During the practicum, students engage in clinical experiences appropriate for their level of professional training.

Internship: Following successful completion of the practicum, students complete a supervised 300-hour internship in a clinical setting. Practitioner track students may elect to enroll in 6 units of internship and complete 600 clinical hours on a full-time basis (40 hours a week) over one term or on a part-time

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basis (20 hours a week) over two terms. Internships are supervised on site by a licensed mental health professional and include a weekly class meeting with a faculty member.

Examinations

At the end of the first year of full-time study and in the last term of enrollment, students participate in a formal evaluation process to assess their cumulative knowledge of completed course work and skills in counseling psychology.

- The advancement examination contains assessment of basic counseling skills, counseling theories, research methods, community mental health counseling, advanced abnormal psychology, use of tests in counseling and ethics. The completion of this evaluation is a prerequisite for the following courses: PSYC 718, 721, 745 and 793.
- The comprehensive examination contains assessment of advanced counseling skills, career counseling, developmental psychology, multicultural counseling and group counseling.

Students will be given two attempts to complete these examinations. Students who do not pass either of these examinations after two attempts will be dismissed from the program.

All degree candidates must meet with their academic adviser to file intended programs of study. This should be done prior to or during the first term of course work. The program can be amended in consultation with the adviser.

COUNSELING PSYCHOLOGY (C.A.S.)

Certificate: Certificate of Advanced Study
Program Director: Christa K. Schmidt
410-704-3063
ckschmidt@towson.edu

The Certificate of Advanced Study (C.A.S.) in Counseling Psychology is specifically designed for post-master's degree students who wish to complete up to 30 units beyond the master's degree.

Each student's program will be designed to meet individual needs and goals. Students may enroll in 30 or fewer units in order to meet educational and vocational objectives.

Students who already possess a master's degree in counseling or a closely related field from an accredited institution may apply to TU specifically to enter the C.A.S. program.

Admission Requirements

Applicants for the C.A.S. must have completed a master's degree in counseling or closely related field, submit two letters of recommendation and a letter of intent indicating why the applicant is interested in pursuing this certification. Send these materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252.

Admission will be determined on a rolling basis. Transfer credit will be accepted in accordance with Graduate School policies, and with the approval of the program director.

Electives (3-9 units)

EXPERIMENTAL PSYCHOLOGY

Program Director: Justin Buckingham
410-704-3214
jbuckingham@towson.edu

The Experimental Psychology Track of the Master of Arts program in Psychology at Towson University is intended for students with interests in any area of psychological research (e.g., clinical, cognitive, developmental, neuroscience, social). The program prepares students for enrollment in doctoral programs or for research jobs in the public and private sectors.

The track is intended either for students who have completed an undergraduate degree in psychology or for those students who have undergraduate degrees in other majors who are interested in pursuing psychological research. Graduates will be prepared to pursue doctoral degrees in psychology in a variety of specialty areas or prepare for such positions as research analyst, research coordinator or statistical analyst. Students in the track receive extensive training in research design and

analysis and have access to a large and diverse faculty. Students receive considerable personal attention: All students are mentored by faculty in their area of interest, and most classes have fewer than 16 students. As a result, students have been very successful in either gaining admission to doctoral programs or finding employment in the field of research design and analysis.

A thesis is required of all students.

Students may work toward the degree either full or part time. Courses are offered only in the late afternoons and evenings.

Admission Requirements

- Prerequisite courses with grades of B or higher in the following areas:
Statistics
Experimental Psychology or Research Methods in Psychology
Learning or Cognitive Psychology
- A minimum undergraduate GPA of 3.00 is required for full admission to the program. Conditional admission is occasionally offered to students with GPA's of less than 3.00 who show exceptional research promise.

Send the following admission materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252:

- A 600-900 word personal statement describing your research interests, research experience, and professional goals. You are encouraged to mention in this letter the faculty member(s) with whom you most want to work.
- Two letters of recommendation. Letters commenting on research experience are particularly useful. Use the Recommendation Form found in the Graduate School Application Packet.

Completed application and admission credentials must meet the deadlines of January 15 for fall term and October 15 for spring term. Students who miss these deadlines may contact the program director to inquire if space is still available in the incoming class. Admission is granted on a competitive, space-available basis.

Degree Requirements

Required Courses (36 units)

PSYC 672	Proseminar (3)
PSYC 673	Advanced Research Methods (4)
PSYC 674	Advanced Biological Psychology (4)
PSYC 679	Special Topics Seminar (3)
PSYC 680	Advanced Cognitive Psychology (4)
PSYC 682	Advanced Social Psychology (3)
PSYC 687	Advanced Experimental Design I (3)
PSYC 688	Advanced Experimental Design II (3)
<i>or</i>	
PSYC 689	Multivariate Methods (3)
PSYC 691	Independent Investigation in Psychology (3)
PSYC 897	Thesis (6)

Electives (3 units)

The student may take any graduate elective at the 500 to 700 level with permission from the program director. The following are recommended electives:

PSYC 611	Developmental Psychology
PSYC 685	College Teaching Practicum
PSYC 679	Special Topics Seminar (on a different topic from the one taken as a required course)

SCHOOL PSYCHOLOGY

Degree: Certificate of Advanced Study and Master of Arts

Program Director: Susan M. Bartels

410-704-3070

sbartels@towson.edu

The School Psychology Track of the Masters of Arts in Psychology is fully accredited by the National Association of School Psychologists (NASP). Students are expected to complete 63 units in order to obtain the master's (M.A.) degree and Certificate of Advanced Study (C.A.S.). Students who graduate from this

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track are eligible for individual certification as Nationally Certified School Psychologists, pending successful completion of the national certification examination. Graduates of the program are also qualified for a variety of positions within the field of psychology and for entrance into doctoral programs.

The mission of the School Psychology track is to produce school psychologists who are well prepared to function independently in a growing and evolving profession. Graduate students in school psychology are trained to view themselves as part of the larger school system, and to make their contributions relevant to the goals of the institutions in which they are employed. The School Psychology track emphasizes early intervention and the use of data-driven, systematic problem solving to address the needs of children and adolescents in the school setting. Students are trained to provide consultation to teachers, parents and administrators; to provide direct counseling and intervention to children and adolescents; to complete ecological assessments of classroom environments; and to administer and interpret a variety of psychological tests to assess intellectual functioning, academic achievement, adaptive behavior, and social/emotional characteristics of students. Students are trained to complete multidimensional evaluations that address the specific reason for referral and that are directly linked to recommendations for intervention. The program promotes the use of intervention and assessment techniques that are empirically sound and sensitive to the diverse population of students that school psychologists serve. Students are expected to display professional work characteristics that are critical to their ability to work effectively with peers, faculty and school-based personnel. These include: respect for human diversity, effective communication skills, effective interpersonal skills, ethical behavior, adaptability, flexibility and independence.

Admission Requirements

- At least 21 undergraduate credits in psychology, which include coursework in each of the following areas (all of which must be completed with a grade of C or better):
 - Behavioral Statistics
 - Abnormal Psychology or Psychopathology
 - Social Psychology
 - Coursework selected from the following: Experimental Psychology, Experimental Design, or Research Design
 - Coursework selected from the following: Child Development, Adolescent Development, Human Development
 - Coursework selected from the following: Educational Psychology, Behavioral Principles, Applied Behavior Management

NOTE: These undergraduate prerequisites cannot be used to satisfy any part of the requirements of the degree. They must be completed prior to initiation of course work for the degree.

- A minimum undergraduate GPA of 3.20 is required for admission to the program. Students with GPAs between 3.00 and 3.19 with special circumstances may be admitted conditionally. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
- Acceptable performance on the General Test of the Graduate Record Examination (GRE) taken within the past five years.. Competency for graduate study can also be evidenced by an earned master's degree in psychology in lieu of the GRE.
- The highest-ranking applicants will be required to interview with the faculty of the School Psychology program.

Send the following admission materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252:

- Three letters of recommendation. Applicants may use the Recommendation Form found in the Graduate School Application Packet, or may submit recommendation letters. Letters are encouraged.
- A letter of intent indicating why the applicant is interested in pursuing graduate study in school psychology.

Completed application and admission credentials must meet the deadline of January 15 for

fall admission. Students who miss these deadlines may contact the program director to inquire if space is still available. Admission is granted on a competitive space-available basis. Applications are not accepted for spring admission.

NOTE: For candidates already possessing a master's degree in School Psychology, courses from a previous degree in School Psychology must be required courses in the current C.A.S. program in order to be accepted toward fulfilling requirements for the C.A.S. Courses that have been taken for the previous M.A. will be reviewed for content and currency by the program director. Additionally, students must earn a minimum of 30 units in the School Psychology program to graduate, as well as complete the culminating internship. Other requirements will be determined on an individual basis.

Degree and Certificate Requirements

Required Courses

PSYC 605	Counseling Techniques (3)
PSYC 611	Developmental Psychology (3)
PSYC 622	Advanced Multicultural Psychology (3)
PSYC 625	Functional Behavior Assessment (3)
PSYC 651	Individual and Group Interventions (3)
PSYC 679	Pre-Internship Seminar (2)
PSYC 687	Advanced Experimental Design I (3)
PSYC 703	Preschool Assessment (3)
PSYC 713	Role of the School Psychologist (3)
PSYC 720	Assessment of Intelligence (3)
PSYC 730	Advanced Child and Adolescent Therapy in School and Community Settings (3)
PSYC 731	School-Based Consultation (3)
PSYC 733	Exceptional Child: Advanced Issues (3)
PSYC 761	Social/Emotional Assessment (3)
PSYC 771	School Psychology Practicum I (3)

PSYC 773	School Psychology Practicum II (3)
PSYC 790	Ethical, Legal and Professional Issues in Psychology (3)
PSYC 794	Internship (1,200 hours, full-time) (7)

and

One course in Family-Professional Collaboration (3)

NOTE: Students may elect to earn a Graduate Certificate in Family-Professional Collaboration by completing three additional courses. See the Family-Professional Collaboration heading in the College of Liberal Arts section of this catalog for more information.

Field Experiences

Practicum: During the second year of the program, concurrent with other course work, students enroll in a full-year practicum course (fall and spring terms). The course includes a one-day per week placement in a local school system under the supervision of a certified school psychologist (arranged by the program faculty) and a weekly seminar on campus. During practicum, students engage in a carefully sequenced series of experiences suited to their level of professional training.

Internship: Following successful completion of the practicum, students are eligible to apply for internships. The 1,200-hour internship is considered a capstone experience and occurs after the completion of all course work. Internships are completed on a full-time basis over one year or on a part-time basis over two years. Students in local placements (approximately 75 percent of our students) attend a biweekly seminar on campus taught by the internship coordinator, who is a full-time school psychology faculty member.

Examinations

- **Master's Comprehensive Examination**
The written comprehensive exam is required to receive a master's degree and must be completed successfully before a student begins the internship. Students have one opportunity to retake the comprehensive exam if it is not passed the first time it is

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taken. For candidates already possessing a master's degree in School Psychology, the requirement for the comprehensive Exam will be determined by faculty.

- **Portfolio Evaluation**

All CAS candidates are required to submit a professional portfolio during the last term of their internship. Specific contents and standards for portfolios are provided to students by their advisers. In general, the professional portfolio contains sample case studies, examples of interventions conducted with students and teachers, description of a system change project, diagnostic reports and a self-reflective essay.

- **Praxis II Examination**

Praxis II Examination in School Psychology must be taken prior to the conclusion of the internship year.

SOCIAL SCIENCE

Degree: Master of Science

Program Director: Nicole Dombrowski Risser
410-704-2907

ndombrowski@towson.edu

The Master of Science degree program in Social Science offers the opportunity for professional enhancement especially in content areas of the social sciences. Experienced teachers wishing to return to the university to study the latest advancements in theoretical, methodological and substantive issues in the social sciences will be especially served. The "global analysis" track of study will be of particular interest to students wishing to pursue or continue careers in a number of different settings, including human rights, homeland security and intelligence, international non-governmental organizations (NGOs), and policy analysis. The program is also open to all post-baccalaureate students and may be of particular interest to professionals active in government and applied fields attracted to the latest developments in the social sciences.

Students will follow a program of study coordinated by the departments of Economics; Geography and Environmental Planning; History; Political Science; Psychology; and Sociology, Anthropology and Criminal Justice. The

program aims to familiarize students with research, theoretical advances, applications and methodological approaches to current topics important to the field of social sciences and the world. The program exposes students to interdisciplinary approaches to related subjects and also allows them to specialize in a discipline of particular interest.

There are two possible tracks of study: the General track and the Global Analysis track. Each track has different degree requirements.

Admission Requirements

- A bachelor's degree with a GPA of 3.00 during last 60 undergraduate credits/units.

Send the following admission materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252:

- Three letters of recommendation each accompanied by a graduate school recommendation form
- A two-page statement of intent

General Track

Degree Requirements

- Completion of the 36-unit program of study.
- Completion of 18 units of core requirements.

The offerings within the core program of study for this track will include:

SOSC 600 Interdisciplinary Approaches to Global Problems (3)

And five of the following courses:

SOSC 601 The Geographer's View (3)

SOSC 602 The Historian's Approach: Comparative History and Historiography (3)

SOSC 603 The Economist's Perspective (3)
SOSC 605 American Politics in the 21st Century (3)

SOSC 606 Sociological Insights (3)
SOSC 609 Developmental Human Learning: A Life Span Approach (3)

WMST 607 Advanced Feminist Theory (3)

- Completion of 18 units beyond the Required Core with 12 units required within a selected discipline and 6 units required within any of the other five program disciplines.
- Students choose their departmental disciplinary emphasis.
- Within each disciplinary emphasis students choose between the thesis and professional presentation options.

Thesis Option

- 500-700-level courses (two from selected discipline) (9 units)
- 600-700-level courses (any other discipline) (3 units)
- Thesis (within track department) (6 units)

Professional Presentation Option

- 500-700-level courses (in selected discipline) (12 units)
- 600-700-level courses (any other discipline) (6 units)
- Professional Presentation Students must deliver a peer-reviewed presentation for a university, local or national conference, organized by their chosen discipline or give a presentation to an assembly of Towson University faculty and program peers.

NOTE: Earn a Graduate Certificate in Family-Professional Collaboration with your elective units and some additional course work. See the Family-Professional Collaboration heading in the College of Liberal Arts section.

Transfer Credit

Students may apply 6 transfer credits with the grade of B or better to the elective requirements only within the selected disciplinary emphasis. The program coordinator must approve transfer credits. Approval may be conditional upon the submission of previous written work. All transfers are subject to the seven-year statute of limitations.

Final Portfolio

The program requires that all students (Thesis and Presentation Option), in both tracks, prepare a final portfolio of their work under the direction of their track adviser.

For portfolio submission requirements, please visit www.towson.edu/msosci.

Exit Interview

Each graduating student must schedule an exit interview with the program director to be held no later than two weeks prior to the end of the term in which the student has applied for graduation. For details, please visit our Web site.

Global Analysis Track

Degree Requirements

- Completion of the 36-unit program of study.
- Completion of 15 units of core requirements.
- Demonstration of language proficiency at the intermediate level. Four terms of college-level foreign language training are required to complete this requirement. Students may complete this by taking Elements I and II and Intermediate I and II at Towson University or by passing an Equivalence Examination at the intermediate level, administered by the Department of Foreign Languages each November. Students who have taken several years of a language in high school will need to consult the chair of Foreign Languages to determine the necessary steps needed to fulfill this language requirement.

The offerings within the core program of study for this track will include:

SOSC 600 Interdisciplinary Approaches to Global Problems (3)

And four of the following courses:

SOSC 601 The Geographer's View (3)

SOSC 602 The Historian's Approach: Comparative History and Historiography (3)

SOSC 603 The Economist's Perspective (3)

SOSC 604 East Asian Security Issues, 1945-Present (3)

WMST 605 Women in International Context (3)

Electives

Students may follow one of two plans when choosing electives in the Global Analysis track: a Regional Focus or a Topical Focus. The Regional Focus allows students to focus their studies on a particular region of the world (e.g., the Middle East or Latin America), whereas the Topical Focus allows students to take a broader, more topical approach, focusing for instance on inequality and power from a comparative perspective. For both plans, it should be noted, students must consult with the program adviser in selecting appropriate courses.

Regional Focus

Under this plan, at least three of the five electives, taken from the following list, must consist of courses related to the geographical region of emphasis, subject to the discretion of the program adviser.

Topical Focus

Under this plan, students may choose any five of the following courses, but the program adviser will oversee the selections to maintain that thematic and topical goals are met.

NOTE: Students should keep in mind the Graduate School's policy that only three courses at the 500 level can be applied to the graduate degree.

- ANTH 530 Korea and Globalization (3)
- ANTH 567 Peoples of the Middle East (3)
- ANTH 568 Globalization in Cross-Cultural Perspective (3)
- ANTH 569 Tradition and Revolution in Latin American Society (3)
- GEOG 511 Cultural Geography (3)
- GEOG 562 Geography of Africa (3)
- GEOG 564 Geography of East Asia (3)
- GEOG 565 Geography of the Middle East (3)
- GEOG 568 Geography of Latin America (3)
- HIST 511 History of Modern Southeast Asia (3)
- HIST 513 Revolutionary China (3)
- HIST 530 Nationalism in 20th Century East and Southeast Asia (3)

- HIST 607 Latin America and the United States (3)
- HIST 621 African History Through Literature (3)
- HIST 684 Disease and History (3)
- HIST 604 East Asian Security Issues, 1945 to Present (3)
- PHIL 502 Philosophies of China and Japan (3)
- POSC 509 Comparative Political Systems (3)
- POSC 512 The Latin American Policy of the United States (3)
- POSC 551 The Government and Politics of Latin America (3)
- POSC 557 Seminar: Use of Force in International (3)
- POSC 591 Seminar in Contemporary United States Foreign Policy (3)
- PSYC 532 Cross-Cultural Psychology (3)
- SOCI 533 Political Sociology (3)
- SOSC 625-630 Special Topics in Social Science (3)
- SOSC 7XX Graduate Overseas Study (3)

Students may also select other electives not listed above, subject to the approval of the program adviser.

Thesis

Six (6) units are required to complete this component. Students choosing the Regional Focus plan must write the thesis in their area of regional focus. Students choosing the Topical Focus are encouraged to pursue a thesis in their particular topical area.

There is no "professional presentation" option for the Global Analysis track of study.

Transfer Credit

Students may apply 6 transfer credits with the grade of B or better, to the elective requirements, at the discretion of the program adviser. The program coordinator must approve transfer credit.

Approval may be conditional upon the submission of previous written work. All transfers are subject to the seven-year statute of limitations.

Final Portfolio

The program requires that all students prepare a final portfolio of their work under the direction of their advisers.

WOMEN'S STUDIES

Degree: Master of Science

Program Director: Rita D. Marinho

410-704-5250

rmarinho@towson.edu

The interdisciplinary and multidisciplinary graduate program in women's studies provides students with a solid academic foundation to pursue their unique goals. As the only applied master's program in Women's Studies in Maryland and the only Women's Studies master's program in Baltimore, the program emphasizes applied research methods and skills, preparing students for careers in a variety of public and private organizations both national and international, profit and nonprofit. It also prepares students to enter doctoral programs in a variety of fields.

The Master's degree offers three concentrations: Women, Health and Sexuality; Women in International Context; Women and Leadership. The program requires the successful completion of three core courses, a required concentration course, and an elective concentration course. A coherent group of electives which includes six additional courses is planned in conjunction with the student's advisor. Within the group of electives students may elect field service experience. Electives carrying a WMST designation or Affiliated Courses may be selected. Finally, a six-hour Culminating Experience consisting of a thesis, an internship or a six-unit portfolio experience is required.

Advising

During the student's first semester, the Graduate Program Director acts as the student's advisor. During that time, the student's academic program is discussed, developed and drafted. At the end of the first semester, the student selects a permanent advisor.

Admission Requirements

- An earned bachelor's degree from an accredited institution with a cumulative GPA of 3.0 computed on the final 60 credit hours earned, including any post-baccalaureate enrollment in a degree program.
- Students meeting the above requirement with that GPA computed at 2.50-2.99 may be admitted under a conditional admission. Students admitted conditionally shall earn a B or better in each of the first nine credit-hours attempted in the WMST M.S. degree program limited to courses designated as WMST.
- Exceptions to the above criteria may be made for students who earned their undergraduate degree ten years or earlier than the semester of application.
- Nine units in Women's Studies and /or the Social Sciences (Anthropology, Sociology, Geography, Political Science, Psychology, Economics or a social-science based interdisciplinary course).

Apply on-line through the Graduate School Website (preferred method): <http://grad.towson.edu/applyNow/default.asp>

Or send material to: The College of Graduate Studies and Research, Admissions Office, Towson University, 8000 York Road, Towson, MD 21252

- A detailed essay of 3-4 word-processed, double-spaced pages, emphasizing the applicant's specific plans for focused graduate study within the selected concentration, including discussion of projected career goals, prior academic and/or work experience (volunteer or paid), and how these experiences have prepared the applicant for academic success within the WMST M.S. Program and projected career goals.
- Two letters of recommendation (one academic required). The application packet provides a two-part recommendation form, both of which must be submitted.
- Two official transcripts.

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Degree Requirements

The M.S. in Women's Studies requires successful completion of 36 credit hours with an average GPA of 3.0 or higher. Core Courses: 9 hours; Concentration Course: 3 hours; Concentration Elective: 3 hours; Electives (WMST or Affiliated) 15 hours; Culminating Experience: 6 hours.

Required Courses (9 units)

Core Courses

- WMST 603 The Diversity of Women (3)
WMST 607 Advanced Feminist Theory (3)
WMST 609 Applied Research Methods and Skills (3)

Concentration Core and Concentration Elective Courses (6)

Women in International Context Concentration

Required: (3)

- WMST 605 Women in an International Context

Concentration Elective: (3)

- WMST 540 Woman as Citizen
WMST 545 Women, Environment and Health
WMST 570 Women, Religion and Ritual
ANTH 521 Gender in Cross-Cultural Perspectives
ANTH 568 Globalization in Cross-Cultural Perspectives

General Electives for Women in an International Context Concentration: (15)

- WMST 540 Woman as Citizen
WMST 545 Women, Environment and Health
WMST 570 Women, Religion and Ritual
WMST 6xx Women, Leadership and Social Organizations
WMST 601 Women, Gender in the Workplace
WMST 611 Women, Public Policy and Social Change

- ANTH 521 Gender in Cross Cultural Perspectives
ANTH 553 Latinas in the Americas
ANTH 567 People of the Middle East
ANTH 568 Globalization in Cross Cultural Perspective
HIST 506 Life Histories of African Women
HIST 511 History of Modern Southeast Asia
HIST 530 Nationalism in 20th Century East and Southeast Asia
HIST 586 Europe in the 3rd World: Colonization to Crisis
POSC 503 Theory of International Politics
POSC 507 Contemporary International Politics
SOSC 600 Interdisciplinary Approaches to Global Problems

Women and Leadership Concentration

Required: (3)

- WMST 6XX Women, Leadership and Social Organizations OR
WMST 611 Women, Public Policy and Social Change

Concentration Elective: (3)

- WMST 540 Woman as Citizen
WMST 570 Women, Religion and Ritual
WMST 601 Women and Gender in the Workplace
WMST 604 Leadership NFP Sector: Governance and Advocacy

General Electives for Women and Leadership Concentration: (15)

- WMST 533 Women and Aging
WMST 540 Woman as Citizen
WMST 5xx B-more: Baltimore and Urban Communities
WMST 570 Women, Religion and Ritual
WMST 601 Women and Gender in the Workplace
WMST 604 Women and Not for Profit Leadership: Governance and Advocacy

HLTH 656	Management of Health Volunteers
HIST 506	Women in 20th Century U.S. History
HIST 558	Workers and Work in the United States
HIST 592	Historical Themes: Comparative History of the Modern Family
HRD 602	Leadership, Theory and Practice
HRD 642	Organizational Behavior
MCOM	Public Relations for the Not for Profit Sector
POSC 505	Urban Government and Politics
POSC 550	Interest Groups and Public Policy
POSC 581	Seminar in Public Policy
SOCI 531	Deviance and Organizations
SOCI 551	Deviant Behavior
SOCI 557	Social Welfare

Women, Health and Sexuality Concentration

Required: (3)

WMST 613	Women and Health
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Concentration Elective: (3)

WMST 538	Women and Sexuality
WMST 545	Women, Environment and Health
HLTH 511	Women and Maturity
HLTH 633	Health Care Systems
HLTH 645	Health Care Policy

General Electives for the Women, Health and Sexuality Concentration (15)

WMST 533	Women and Aging
WMST 536	Women and Medicine
WMST 538	Women and Sexuality
WMST 539	Reproductive Technologies and the Future of Motherhood
WMST 545	Women, Environment and Health
HIST 526	Guys and Lesbians in U.S. History

HCMN 541	Legal and Ethical Issues in Health Administration
HLTH 511	Women and Maturity
HLTH 615	Community Health
HLTH 633	Health Care Systems
HLTH 645	Health Care Policy
PHIL 561	Biomedical Ethics
PSYC547	Sex Differences: Psychological Perspectives
PSYC557	Gender Identity in Transition
PSYC 610	Advanced Psychology of Aging
SOCI 535	Medical Sociology
SOCI 551	Deviant Behavior
SOCI 553	Theories of Crime

Elective Course Information

Elective courses, whether carrying a WMST or other department designation, must form a coherent program, meet student's learning needs, and be selected in consultation with the students advisor. An elective course selected but not included on the Elective Course lists for any concentration (either WMST or affiliated designation) shall be approved by the Program Director.

Students should meet with their advisors to select a coherent set of concentration electives.

Limit of three (3) 500-level courses may be applied to Master's Degree.

Under special circumstances and in accordance with the Directed Readings /Independent Study Policies of the WMST Department, the student may select with appropriate approvals WMST 591 Directed Readings of WMST 695 Independent Study as an elective.

Field Experience 620 may be selected as a General Elective for any concentration.

Special Topics 570 and 670 may be selected as a General Elective for any concentration with advisor approval.

Culminating Experience Courses (6)

Additional information regarding the WMST Culminating Experience is detailed in the Women's Studies Graduate Student Handbook.

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Thesis Option

- WMST 897 Thesis one-term (6)
WMST 898 Thesis two consecutive terms
(3) each enrollment.
WMST 899 Thesis continuum ((1)

Internship Option

- WMST 796 (3) each enrollment.

Two-Course Portfolio Option

Two courses selected in advance of course enrollment with advisor's approval; requirements include a portfolio and reflective essay. (6)

WOMEN'S STUDIES CERTIFICATE

Certificate: Post-Baccalaureate

Program Director: Rita. D. Marinho, 410

704-5250 rmarinho@towson.edu

The Women's Studies graduate certificate program supports students enrolled in master's programs outside of Women's Studies as well as students pursuing advanced higher education learning but not a formal degree. The WMST Certificate creates a learning environment which includes both theoretical content and applied skills. The certificate program allows the integration of knowledge and perspectives about women to be integrated into other professions and academic studies.

Admission Requirements

- The minimum academic requirement is an earned Bachelor's degree from an accredited institution with a cumulative gpa of 3.0 or higher for full admission or a minimum cumulative gpa of 2.5 for conditional admission. Students may be currently enrolled in a post-baccalaureate degree at Towson University or in another accredited institution of higher learning.
- Nine units/credit hours in Women's Studies and/or Social Sciences (Psychology, Anthropology, Sociology, Political Science, Psychology, Geography, Economics or an interdisciplinary Social Science)

Apply on-line through the Graduate School Website (preferred method): <http://grad.towson.edu/applyNow/default.asp>

Or send material to: The College of Graduate Studies and Research, Admissions Office, Towson University, 8000 York Road, Towson, MD 21252

- A detailed essay of 3-4 word-processed, double-spaced pages, emphasizing the applicant's career goals and the planned focus of the certificate program.
- Two letters of recommendation (one academic required). The application packet provides a two-part recommendation form, both of which must be submitted.
- Two official transcripts.

Certificate Requirements (15)

Required Courses (6)

WMST 603 The Diversity of Women (3)

WMST 607 Advanced Feminist Theory (3)

Electives (9)

- Nine units in graduate-level WMST designated courses selected with the approval of the student's advisor.
- Limit of one 500-level WMST course to be included in the certificate program.
- WMST 620 Field Experience nor any WMST 700 or 800 course may be included in the certificate program.

Advising

The Graduate Program Director acts as the Certificate Student's advisor during this first semester of matriculation when a program of study is planned and drafted. The student may select a different advisor after the first semester of enrollment.

Application of Units Earned in the WMST Certificate Program

Units earned for the Graduate Certificate Program with a grade of B or better may be applied to the Master's Degree in Women's Studies. The Certificate Student must complete formal application to the WMST M.S. Degree for admission.

THE JESS AND MILDRED FISHER COLLEGE OF SCIENCE AND MATHEMATICS

The Jess and Mildred Fisher College of Science and Mathematics is committed to developing dynamic and confident graduates who are well prepared to respond creatively to the demands and challenges of our times. The college's growing reputation for excellence in graduate education is built upon the philosophy of learning by doing. Students work closely with faculty, receiving quality instruction in small classes as well as opportunities for one-on-one interaction between students and faculty in classrooms and laboratories.

The Fisher College serves both full-time and part-time students with diverse backgrounds pursuing career and educational goals. The college is also committed to the preparation of elementary and secondary school teachers of science and mathematics.

Faculty members are active in pure and applied research; many are widely published and receive external funding in support of their research. Faculty research programs include nanotechnology, astrophysics, molecular biology, chemistry, biochemistry, ecology, biodiversity, geology, statistics, pure and applied mathematics, mathematics and science education, robotics, and computer science. Several faculty members work in collaboration with industry and government labs, and their work is supported by grants from major funding agencies. Faculty members are often involved in a range of outreach activities, providing professional development programs for teachers, and in service to the community that draws on their professional experience.

David Vanko, Acting Dean

Howard Kaplon, Acting Associate Dean

COLLEGE OFFICE

Smith Hall 312 P

Phone: 410-704-2121

Fax: 410-704-2604

fcsm@towson.edu

www.towson.edu/fcsm

Doctoral Degree Program

Applied Information Technology

Master's Degree Programs

Applied and Industrial Mathematics

Applied Information Technology

Biology

Computer Science

- Computer Security

- e-Commerce

- Software Engineering

Environmental Science

Forensic Science

Mathematics Education

Science Education

- Biology

- Chemistry

- Earth and Environmental Science

Post-Baccalaureate and Certificate Programs

Environmental Science

Database Management Systems

Information Security and Assurance

Information Systems Management

Internet Application Development

Networking Technologies

Software Engineering

APPLIED AND INDUSTRIAL MATHEMATICS

Degree: Master of Science

Program Director: Xuezhang (John) Hou

410-704-2578

xhou@towson.edu

The Master of Science program provides students with a broad knowledge in applied mathematics, with an emphasis on areas with the highest demand in business and industry. Among the areas stressed in the program are mathematical modeling, numerical computations, operations research, financial mathematics and statistical analysis. Numerical, computational and algorithmic approaches to problem solving are stressed throughout the program. Graduates of the program will be qualified to work in such fields as operations research, stochastic modeling, financial data analysis and statistics, among many others. Graduates of the program will also be prepared for further work at the doctoral level.

The program requires the completion of an applied full-year research project at a graduate level. There are three options listed below in order of priority to complete this requirement. The project can be:

- a. An external applied project through a local industry or a government agency. Students choosing this option take MATH 791 and MATH 792; Master's Internship I and II, under the supervision of a faculty member from the Department of Mathematics.
- b. With a faculty member in the Department of Mathematics on an applied graduate level project. Students choosing this option take MATH 880 and MATH 881, Applied Graduate Project I and II.
- c. In the department's Applied Mathematics Laboratory (AML). Typically, corporations and government agencies sponsor these projects. Students choosing this option take MATH 880 and MATH 881, Applied Graduate Project I, II. Not all AML projects can be used for the internship purpose.

Students need to submit a project proposal to the graduate committee for approval. In particular, students working on AML projects must describe their roles and responsibilities as part of the team. Students on AML projects must take a primary role in a significant portion of the project. The project proposal must be approved by the graduate committee before students can register for the course. All students must produce a final written project report and make an oral presentation to the graduate committee. For students who participate in AML projects, this is in addition to any project required reports and presentation.

If the Graduate Program Committee believes that all attempts, based on the above options, to find an internship project for the student were not successful, the student can take two additional 600-level mathematics courses from any of the two tracks. Students who select this option also must take a comprehensive oral examination on four 600-level mathematics courses of their choice taken from a declared track. Faculty members who have taught these courses and also the Graduate Committee members will form the panel of examiners.

All graduate students are required to meet with the APIM graduate program director two and a half terms prior to their graduation (late April or late October, whichever applies) to discuss their choices for completing the internship requirement. Students will commit themselves to their choice by signing a form available from the director.

Students whose careers are in education may, with the approval of the department's Graduate Program Committee, replace the industrial setting of the internship with an educational setting. This will typically entail the development of original course material stressing applied mathematics and using innovative teaching techniques.

The main objectives of the program are: 1) to prepare individuals who are capable of applying advanced mathematical skills to problems in areas of science, business and industry; 2) to develop the students' abilities to integrate, in a meaningful way, the use of technology in their everyday professional practice;

3) to give educators an opportunity to satisfy their in-service requirements and simultaneously enhance their knowledge of technology and enrich their mathematical backgrounds; 4) to supply students with the mathematical competency necessary for advancement to a more professional role in the high-technology sector; 5) to develop students' reasoning and communication skills for improved service to the high-technology sector; 6) to educate students to solve problems, to work in teams and to communicate in an interdisciplinary setting; 7) to familiarize students with the recent advances in applied mathematics such as time series analysis, financial mathematics, operations research and stochastic modeling; 8) to prepare students for further graduate work at the doctoral level in applied mathematics; and 9) to enrich the academic culture by providing opportunities for interaction of mathematical and industrial research. Both full-time and part-time students are encouraged to enroll in the program. Core courses are usually offered in the evening, for the convenience of part-time students.

Admission Requirements

- A baccalaureate degree in mathematics or a related field. The applicant's undergraduate training must have included at least three terms of calculus, a course in differential equations and a course in linear algebra. Students with any deficiency in their mathematical background may be admitted conditionally if they are willing to correct such deficiency.
- An undergraduate GPA of at least 3.00 for full admission, 2.75 for conditional admission is required. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
- For international students whose native language is not English, English competency must be certified by the achievement of a minimum of 550 on the written and 213 on the computerized Test of English as a Foreign Language (TOEFL)

Degree Requirements

There are two tracks to choose from. A student may transfer up to two graduate-level mathematics courses taken at another institution, provided that the transfer is consistent with the Graduate School policy. Students are required to submit a written technical report and give an oral presentation based on their internship (Math 791-792), or applied graduate project (MATH 880, MATH 881) to the Graduate Program Committee. Satisfactory completion of the technical report and the oral presentation, as judged by the Graduate Program Committee, is a requirement for graduation.

The student is required to successfully complete at least 10 courses (a minimum of 30 units) as indicated below.

1. at least four 600-level courses from a declared track
2. at least two 600-level courses from the other track*
3. at most two 500-level courses from List A will count toward the degree
4. MATH 791-792 or MATH 880-881

*NOTE: At most one of the courses in the degree requirement No. 2 above can be replaced with MATH 651 (Mathematics of Fuzzy Logic) or MATH 671 (Chaotic Dynamics and Fractal Geometry)

LIST A

MATH 531	Probability (4)
MATH 532	Mathematical Statistics (3)
MATH 533	Applied Regression and Time Series Analysis (4)
MATH 534	Nonparametric Statistical Methods (3)
MATH 535	Numerical Analysis I (3)
MATH 537	Operations Research (3)
MATH 538	Life Contingencies I (3)
MATH 563	Linear Algebra (3)
MATH 575	Mathematical Models (3)
MATH 576	Introductory Real Analysis (4)
MATH 577	Complex Analysis (3)
MATH 579	Advanced Calculus (3)
MATH 585	Mathematical Finance (3)

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MATH 586 Risk Management and
Financial Engineering (3)

Differential Equations/ Optimization Track

MATH 635 Applied Numerical Analysis (3)

MATH 636 Linear and Nonlinear
Programming (3)

MATH 637 Advanced Topics in Applied
Operations Research (3)

MATH 673 Integral Transforms and
Applications (3)

MATH 674 Partial Differential
Equations (3)

MATH 675 Asymptotic and Perturbation
Analysis (3)

NOTE: Students in this track without undergraduate units in Advanced Calculus, Complex Analysis and/or Numerical Analysis must take them at Towson University from the courses listed below. At most two of the following courses may be counted toward graduation as stated in item 3 under Degree Requirements shown above.

MATH 579/ Advanced Calculus (3)
379

MATH 577/ Complex Analysis (3)
475

MATH 535/ Numerical Analysis I (3)
435

Applied Statistics/Mathematical Finance Track

MATH 632 Computational Stochastic
Modeling (3)

MATH 633 Queuing Systems (3)

MATH 634 Computational Spectral
Analysis and Time Series (3)

MATH 638 Applied Multivariate Statistical
Analysis (3)

MATH 644 Mathematical Financial
Derivatives (3)

MATH 643 Computational Methods of
Mathematical Finance (3)

NOTE: Students in this track without undergraduate units in Probability, Applied Regression

and Time Series Analysis and/or Mathematical Finance or Risk Management and Financial Engineering must take them at Towson University from the courses listed below. At most two of the following courses may be counted toward graduation as stated in item 3 under Degree Requirements shown above.

MATH 531/ Probability (4)
331

MATH 533/ Applied Regression and Time
337 Series Analysis (4)

MATH 585/ Mathematical Finance (3)
485

or

MATH 586/ Risk Management and
486 Financial Engineering (3)

APPLIED INFORMATION TECHNOLOGY (D.SC.)

Degree: Doctor of Science (D.Sc.)

Program Director: Ramesh Karne

410-704-3955 r

karne@towson.edu

Applied Information Technology is the research and development of computer-based information systems to address real-world problems. This program will provide graduate-level education at the doctoral level in IT for those preparing to enter academic or research institutions as well as the high-tech work force and those already in the work force who need to update and enhance their skills.

NOTE: Since this program is operated through the Center for Applied Information Technology (CAIT), it has a different structure of tuition and fees from other graduate programs. Contact the Bursar's Office for more information.

Admission Requirements

- Completion of bachelor/master's degree in Applied Information Technology, Computer Information Systems, Computer Science or a closely related area with a GPA of 3.00 or higher.
- Minimum TOEFL score of 550 (where applicable)

Admissions are on a rolling basis; however, for international students, all admission credentials must be submitted by October 1 for spring term, and by April 15 for fall term. There are no summer admissions.

Send the following admission materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252:

- Completed graduate school application form
- Official undergraduate and graduate transcripts
- In addition to reference form, minimum of two letters of recommendation (preferably from academic institutions)
- Statement letter indicating educational and professional objectives of the candidate.
- Résumé

Degree Requirements (75 units beyond B.S./B.A. Degree)

- 1) Completion of requirements for a master's degree (33 units) in applied information technology or computer science. Students admitted to the doctoral program with a master's degree in applied information technology, computer information science, computer science, or any other closely related areas do not have to complete the above requirements.
 - Students may choose to complete the requirements for a master's degree in computer science or applied information technology at Towson University.
- 2) Completion of a minimum of 18 additional graduate-level units from among the list of courses for the doctoral program as recommended by the program committee. There is no transfer of credits allowed to satisfy the above 18 -unit requirement. For those applicants whose master's degree is not in AIT, CIS, information systems or computer science, the program committee may assign additional courses to be completed based on individual cases. Annual GPA in course work must be at least 3.50.
- 3) A student must pass the qualifying examination within two attempts; one or more sections of the examination can be taken

during a given attempt. A student must pass four out of six sections to pass the qualifying examination in two attempts.

- 4) Satisfactory completion of Dissertation requirement. (24 units—may not be registered more than 9 units per term)
- 5) Satisfactory completion of Dissertation defense.

NOTE: For additional details, contact the program director or check the Computer Science department Web site.

APPLIED INFORMATION TECHNOLOGY (M.S.)

Degree: Master of Science
 Program Director: Mike O'Leary
 410-704-4909
 CAIT@towson.edu
 www.towson.edu/cait

Applied Information Technology is the study, design, development, implementation and support of computer-based information systems to address real-world problems. This program provides graduate-level education in IT for students preparing to enter the high-tech work force and those already in the work force who need to update and enhance their skills. We offer courses in areas such as systems development, IT project management, Internet application development and IT and business analysis. Graduate certificates in Internet application development, information security and assurance, information systems management, networking technologies, software engineering, and database management systems are integrated with the M.S. degree program.

Admission Requirements

- A baccalaureate degree from an accredited college or university
- A minimum undergraduate GPA of 3.00 for full admission and 2.50 for conditional admission
- Minimum TOEFL score of 550 (where applicable)

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These programs are intended for students who have a bachelor's degree in information technology, computer science, computer information systems or a related field who will enter the program for advanced studies; students who have a bachelor's degree in a field not listed above who are already employed in the IT field and are seeking additional academic studies for professional growth or career advancement; and students who have a bachelor's degree in disciplines other than IT who are seeking preparation for careers in this field.

Degree Requirements

- Completion of any assigned preparatory courses.
- Completion of 33 graduate units as follows:

Required Courses (15 units)

Students must complete the requirements for a graduate certificate in applied information technology. Currently, the following graduate certificates in information technology are available. Additional graduate certificates may be added to this list in the future.

Database Management Systems

AIT 600	Information Technology Infrastructure (3)
AIT 610	Systems Development Process (3)
AIT 632	Database Management Systems (3)
AIT 732	Advanced Database Management Systems (3)
AIT 735	Case Studies in Database Management Systems (3)

Information Security and Assurance

AIT 600	Information Technology Infrastructure (3)
AIT 610	Systems Development Process (3)
AIT 612	Information Systems Vulnerability and Risk Analysis (3)
AIT 614	Network Security (3)

AIT 710	Case Studies in Information Security (3)
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Information Systems Management

AIT 600	Information Technology Infrastructure (3)
AIT 610	Systems Development Process (3)
AIT 628	IT and Business Strategy (3)
AIT 630	IT Project Management (3)
AIT 730	Case Studies in Information Systems Management (3)

Internet Application Development

AIT 600	Information Technology Infrastructure (3)
AIT 610	Systems Development Process (3)
AIT 616	Fundamentals of Web Technologies and Development (3)
AIT 618	Client/Server-Side Programming on the Web (3)
AIT 715	Case Studies in Internet Applications (3)

Networking Technologies

AIT 600	Information Technology Infrastructure (3)
AIT 610	Systems Development Process (3)
AIT 620	Business Data Communications (3)
AIT 622	Networking Architectures and Protocols (3)
AIT 720	Case Studies in Networking Applications (3)

Software Engineering

AIT 600	Information Technology Infrastructure (3)
AIT 610	Systems Development Process (3)
AIT 624	Software Engineering Fundamentals (3)
AIT 626	Advanced Topics in Software Engineering (3)
AIT 725	Case Studies in Software Engineering (3)

Electives (18 units)

Students must complete six graduate-level elective courses. A maximum of two elective courses may be in any of the following disciplines: accounting, computer science, human resource development, management, mathematics and technical writing. Those who want to take elective courses from a discipline other than AIT must get the AIT program director's approval before enrolling in the course. At least four of the elective courses must be graduate-level AIT courses from the following list:

AIT 612	Information Systems Vulnerability and Risk Analysis (3)
AIT 614	Network Security (3)
AIT 616	Fundamentals of Web Technologies and Development (3)
AIT 618	Client/Server-Side Programming on the Web (3)
AIT 620	Business Data Communications (3)
AIT 622	Networking Architectures and Protocols (3)
AIT 624	Software Engineering Fundamentals (3)
AIT 626	Advanced Topics in Software Engineering (3)
AIT 628	IT and Business Strategy (3)
AIT 630	IT Project Management (3)
AIT 632	Database Management Systems (3)
AIT 650	Computer & Networks Forensics and Incident Response (3)
AIT 652	Ethics, Law and Policy in Cyberspace (3)
AIT 655	Managing Information Security (3)
AIT 670-679	Special Topics (3)
AIT 695	Independent Study in AIT (3)
AIT 732	Advanced Database Management Systems (3)

DATABASE MANAGEMENT SYSTEMS

Certificate: Post-Baccalaureate
 Program Director: Mike O'Leary
 410-704-4909
cait@towson.edu
www.towson.edu/cait

The Graduate Certificate in Database Management Systems covers the study, design and development of database systems and discusses the major issues in managing a large database system. This program provides graduate-level education in IT for students wanting to make progress in the high-tech work environment or preparing to enter the high-tech work force. This course of study can be completed as a stand-alone graduate certificate or applied to the M.S. degree program in Applied Information Technology. The program is intended for students who have a bachelor's degree in a computing related field and are working as programmers, software engineers, system analysts, etc. who will enter the program for advanced study. The program may also be of interest to:

- Persons who do not have a bachelor's degree in the field, but who are currently employed in the IT field and are seeking additional academic studies for professional growth or to advance their career
- Persons who have a bachelor's degree in a discipline other than IT who are seeking preparation for careers in this field

For additional information, contact the program director at 410-704-4909 or cait@towson.edu, or visit www.towson.edu/cait.

Certificate Requirements

AIT 600	Information Technology Infrastructure (3)
AIT 610	Systems Development Process (3)
AIT 632	Database Management Systems (3)
AIT 732	Advanced Database Management Systems (3)
AIT 735	Case Studies in Database Management Systems (3)

INFORMATION SECURITY AND ASSURANCE

Certificate: Post-Baccalaureate
 Program Director: Mike O'Leary
 410-704-4909
cait@towson.edu
www.towson.edu/cait

The Graduate Certificate in Information Security and Assurance covers the study, design, development, implementation and support of computer-based information systems with regard to securing information. This program provides graduate-level education in IT for students preparing to enter the high-tech work force and those already in the work force who wish to update and enhance their skills. This course of study can be completed as a stand-alone graduate certificate or applied to the M.S. program in Applied Information Technology. The program is intended for students who have a bachelor's degree in information technology, computer science, computer information systems, or a related field, who will enter the program for advanced studies. The program may also be of interest to:

- Persons who do not have a bachelor's degree in the field, but who are currently employed in the IT field and are seeking additional academic studies for professional growth or to advance their careers
- Persons who have a bachelor's degree in a discipline other than IT who are seeking preparation for careers in this field

For additional information, contact the program director at 410-704-4909 or cait@towson.edu, or visit www.towson.edu/cait.

Certificate Requirements

AIT 600	Information Technology Infrastructure (3)
AIT 610	Systems Development Process (3)
AIT 612	Information Systems Vulnerability and Risk Analysis (3)
AIT 614	Network Security (3)
AIT 710	Case Studies in Information Security (3)

INFORMATION SYSTEMS MANAGEMENT

Certificate: Post-Baccalaureate
 Program Director: Mike O'Leary
 410-704-4909
cait@towson.edu
www.towson.edu/cait

The Graduate Certificate in Information Systems Management covers the study, design, development, implementation and support of computer-based information systems. This program provides graduate-level education in IT for students preparing to enter the high-tech work force and those already in the work force who wish to update and enhance their skills. The course of study can be completed as a stand-alone graduate certificate or applied to the M.S. program in Applied Information Technology. This program is intended for students who have a bachelor's degree in information technology, computer science, computer information systems or a related field, who will enter the program for advanced studies. The program may also be of interest to:

- Persons who do not have a bachelor's degree in the field, but who are currently employed in the IT field and are seeking additional academic studies for professional growth or to advance their careers
- Persons who have a bachelor's degree in a discipline other than IT who are seeking preparation for careers in this field

For additional information, contact the program director at 410-704-4909 or cait@towson.edu, or visit www.towson.edu/cait.

Certificate Requirements

AIT 600	Information Technology Infrastructure (3)
AIT 610	Systems Development Process (3)
AIT 628	IT and Business Strategy (3)
AIT 630	IT Project Management (3)
AIT 730	Case Studies in Information Systems Management (3)

INTERNET APPLICATION DEVELOPMENT

Certificate: Post-Baccalaureate

Program Director: Mike O'Leary

410-704-4909

cait@towson.edu

www.towson.edu/cait

The Graduate Certificate in Internet Application Development covers the study, design, development, implementation and support of computer-based information systems for the World Wide Web. This program provides graduate-level education in IT for students preparing to enter the high-tech work force and those already in the work force who wish to update and enhance their skills. This course of study can be completed as a stand-alone graduate certificate or applied to the M.S. degree program in Applied Information Technology. The program is intended for students who have a bachelor's degree in information technology, computer science, computer information systems or a related field, who will enter the program for advanced studies. The program may also be of interest to:

- Persons who do not have a bachelor's degree in the field, but who are currently employed in the IT field and are seeking additional academic studies for professional growth or to advance their careers
- Persons who have a bachelor's degree in a discipline other than IT who are seeking preparation for careers in this field

For additional information, contact the program director at 410-704-4909 or cait@towson.edu, or visit www.towson.edu/cait.

Certificate Requirements

AIT 600	Information Technology Infrastructure (3)
AIT 610	Systems Development Process (3)
AIT 616	Fundamentals of Web Technologies and Development (3)
AIT 618	Client/Server-side Programming on the Web (3)

AIT 715

Case Studies in Internet Applications (3)

NETWORKING TECHNOLOGIES

Certificate: Post-Baccalaureate

Program Director: Mike O'Leary

410-704-4909

cait@towson.edu

www.towson.edu/cait

The Graduate Certificate in Networking Technologies covers the study, design, development, implementation and support of computer-based information systems with regard to sharing information over computer-based systems. This program provides graduate-level education in IT for students preparing to enter the high-tech work force and those already in the work force who wish to update and enhance their skills. This course of study can be completed as a stand-alone graduate certificate or applied to the M.S. degree program in Applied Information Technology. The program is intended for students who have a bachelor's degree in information technology, computer science, computer information systems or a related field, who will enter the program for advanced studies. The program may also be of interest to:

- Persons who do not have a bachelor's degree in the field, but who are currently employed in the IT field and are seeking additional academic studies for professional growth or to advance their careers
- Persons who have a bachelor's degree in a discipline other than IT who are seeking preparation for careers in this field

For additional information, contact the program director at 410-704-4909 or cait@towson.edu, or visit www.towson.edu/cait.

Certificate Requirements

AIT 600	Information Technology Infrastructure (3)
AIT 610	Systems Development Process (3)
AIT 620	Business Data Communications (3)

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AIT 622	Networking Architectures and Protocols (3)
AIT 720	Case Studies in Networking Applications (3)

AIT 626	Advanced Topics in Software Engineering (3)
AIT 725	Case Studies in Software Engineering (3)

SOFTWARE ENGINEERING

Certificate: Post-Baccalaureate
Program Director: Mike O'Leary
410-704-4909
cait@towson.edu
www.towson.edu/cait

The Graduate Certificate in Software Engineering covers the study, design, development, implementation and support of computer-based information systems. This program provides graduate-level education in IT for students preparing to enter the high-tech work force and those already in the work force who wish to update and enhance their skills. The course of study can be completed as a stand-alone graduate certificate or applied to the M.S. degree program in Applied Information Technology. The program is intended for students who have a bachelor's degree in information technology, computer science, computer information systems or a related field, who will enter the program for advanced studies. The program may also be of interest to:

- Persons who do not have a bachelor's degree in the field, but who are currently employed in the IT field and are seeking additional academic studies for professional growth or to advance their careers
- Persons who have a bachelor's degree in a discipline other than IT who are seeking preparation for careers in this field

For additional information, contact the program director at 410-704-4909 or cait@towson.edu, or visit www.towson.edu/cait.

Certificate Requirements

AIT 600	Information Technology Infrastructure (3)
AIT 610	Systems Development Process (3)
AIT 624	Software Engineering Fundamentals (3)

BIOLOGY

Degree: Master of Science
Program Directors: Gail Gasparich
410-704-4515
ggasparich@towson.edu

Joel Snodgrass
410-704-5033
jsnodgrass@towson.edu

The Master of Science degree in Biology is intended to provide students with advanced training in subdisciplines of biology. Students may obtain a degree through a thesis or non-thesis track. The thesis track includes a combination of course work and the completion of a major research project, the results of which are prepared for publication in the form of a thesis. Students in the thesis track will concentrate their course work and research efforts in one of two areas: Molecular, Cellular and Microbiology, or Organismal Biology and Ecology. The thesis track provides the necessary background and experience for those who plan further study for their Ph.D., for those whose employment requires research training, and for those who wish to teach in community colleges. Graduate teaching and research assistantships are awarded on a competitive basis to full-time thesis students. Students may choose alternatively to obtain a degree entirely through course work and, optionally, a small research project. This non-thesis track is designed for those who want a broader background in biology, including secondary school teachers. A diverse course offering is available in the evening to accommodate working students.

Greater Baltimore is a center of high technology and biomedical research. In addition, the region's rapid growth and development have stimulated concerns about environmental issues and placed strains on the educational system. As a consequence, graduates with

mas-ter's-level training are sought by research facilities and private laboratories, environmental consulting firms, zoos and aquaria, and public and private secondary schools.

Admission Requirements

- A minimum of 24 undergraduate credits in biology.
- Course work in general chemistry, organic chemistry and physics.
- A GPA of 3.00 in previous biology course work. An overall GPA (i.e., in biology and all other courses) of 3.00 is required for full admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate course work. Students lacking key prerequisites and/or having a GPA of 2.50-2.99 may be given conditional admission. Any student admitted conditionally will be required to make up deficiencies in prerequisites and/or achieve a GPA of 3.00 in their first three graduate courses taken at Towson University.

Application to the Program

Send the following admission materials to the Graduate School, Towson University, 8000 York Road, Towson, MD 21252-0001:

- General application form, application fee, and official transcripts, supplemental application for M.S. degree in Biology (available from the program director at address above or at the departmental Web site or the Graduate School Web site) and three letters of recommendation from instructors or supervisors familiar with the student's record, aptitude and potential for graduate work.
- Students who are applying to do thesis research must also submit scores from the Graduate Record Examination-General Test to the Graduate School at the above address. Scores from the GRE Subject Examination in Biology are recommended but not required. No GRE scores are required for students applying to do a nonthesis degree.
- Students who are applying to do thesis research must have, prior to the application deadline, the written support of a faculty member who is willing to serve as their thesis adviser.

Application Deadlines

Due to curriculum requirements, thesis students are primarily admitted for the fall term and more rarely, on a case-by-case basis, for the spring term. The deadlines for thesis students requesting Graduate Assistantships are:

- March 15 for the following fall term
- October 15 for the following spring term

The deadlines for non-thesis and thesis students not requesting a Graduate Assistantship are:

- April 15 for the following summer term
- July 15 for the following fall term
- November 15 for the following spring term

Degree Requirements

Thesis and non-thesis students are required to complete 30 units of course work. Students may take no more than two courses at the 500 level and no more than two courses in disciplines outside of Biology (with the exception of ENVS 604), and only with the prior approval of the student's advisory committee or assigned adviser.

Students in the thesis track must concentrate course work and research efforts in one of two areas: Molecular, Cellular and Microbiology, or Organismal Biology and Ecology. Thesis students must take a minimum of 9 units of course work in one of these two areas. All course work must be approved by the student's thesis advisory committee. Appropriate course work will be based on the student's undergraduate background, area of research and career objectives. A minimum of 16 of the 24 non-thesis units must come from courses at the 600-700 level. Thesis students may count no more than 3 combined units from BIOL 701 and 703 toward a degree. All thesis students must take BIOL 796 Professional Aspects of Biology and BIOL 797 Graduate Seminar. Thesis students earn 6 units upon completion and successful defense of the thesis. All thesis track students must complete and successfully defend a thesis before the degree is awarded.

Students in the non-thesis track are not required to concentrate course work in a specific subdiscipline. However, non-thesis students will select course work with assistance

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and approval of an adviser from the Biology graduate faculty. Course selections will be based on the non-thesis student's undergraduate background, purpose for pursuing the M.S. degree, and current or planned career. A minimum of 22 of the 30 required units must come from courses at the 600-700 levels. All students must take BIOL 797 Graduate Seminar. Non-thesis students may count no more than 6 combined units from BIOL 701 and 703 toward a degree.

COMPUTER SCIENCE

Degree: Master of Science

Program Director: Shiva Azadegan

410-704-3951

azadegan@towson.edu

This program provides a comprehensive approach to advanced study in computer science. It also prepares professionally responsible individuals to be capable of holding a variety of scientific and technical positions in the area of computing applications.

Such jobs are found in research and development departments; in federal, state and local government agencies; in computer software development companies; in computer security companies; in Internet, e-commerce and Web development companies; and in companies involved in the development of hardware and software products for applications in aerospace, biological, chemical, medical and genetic research. Graduates will also be prepared for further work at the doctoral level.

The main objectives of the program are: 1) to give students the opportunity to study and attain knowledge in current computer science specialties; 2) to develop student ability to apply computer science problem-solving methods and tools to realistic research and industry-related problems; 3) to equip students with the tools and knowledge necessary for contributing to the needs of a hightechnology society through preparation for continued learning; 4) to prepare students for advanced graduate work in computer science.

Admission Requirements

- A baccalaureate degree in computer science or a baccalaureate degree in any other field and completion of one to three preparatory courses from among MATH 263, COSC 280, COSC 501, as determined by the graduate program director.
- An undergraduate GPA of 3.00 for full admission or 2.50 for conditional admission are required. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.

Prerequisite Courses

MATH 263	Discrete Mathematics (3)
COSC 280	Assembly Language and Computer Architecture (3)
COSC 501	Fundamentals of Data Structures and Algorithm Analysis (6)

Both COSC 501 and COSC 280 can be taken together in the same term. These prerequisites are not required for students who have a baccalaureate degree in Computer Science. The MATH 263 course is not required for students who have an engineering, mathematics or computer science baccalaureate degree. Students with no engineering, mathematics or computer science degree background must take all three prerequisites.

A grade of B or better (or pass) is required for the successful completion of any prerequisite course.

Students may repeat prerequisite courses no more than two times to be eligible to take graduate-level courses.

Degree Requirements

- Satisfactory completion of any assigned preparatory courses. (This only applies to students who do not have an undergraduate degree in computer science.)
- All M.S. students must complete the core courses in Group A.
- Satisfactory completion of the requirements for the M.S. in Computer Science, or M.S. in Computer Science with the Software Engi-

neering/Computer Security/E-Commerce Track. At least 24 units of degree work must be at 600 to 800 levels.

- Earn a grade of B or better in all required courses listed in Group A. Courses may be repeated once to satisfy this requirement.

M.S. in Computer Science (33 units)

Group A—Core Courses (15–18 units)

COSC 519	Operating Systems Principles (3)
COSC 578	Database Management Systems I (3)
COSC 600	Advanced Data Structures and Algorithm Analysis (3)
COSC 650	Computer Networks (3)
COSC 880	Graduate Project/Internship (3)
or	
AIT 880	Graduate Project (3)
or	
COSC 897	Computer Science Thesis (6)

Group B—Elective Courses (15–18 units)

Any 500/600/700-level COSC courses that are not taken in Group A will be counted as electives. Note that students may not count more than 9 units of 500-level courses toward their graduation requirements.

Software Engineering Track (33 units)

Group A—Core Courses (15–18 units)

Same as M.S. in Computer Science.

Group B—Required Courses (12 units)

Students must take the required course listed below:

COSC 609	Software Project Management (3)
COSC 612	Software Engineering I (3)
COSC 614	Software Engineering II (3)
COSC 716	Object-Oriented Methodology (3)

Group C—Elective Courses (3–6 units)

Any 600/700-level COSC courses that are not taken in Group A or Group B will be counted as electives. Those who want to take elective courses from a discipline other than COSC must get the COSC program director's approval before enrolling in the course.

M.S. in Computer Science: Computer Security Track (33 units)

Group A—Core Courses (15–18 units)

Same as M.S. in Computer Science.

Group B—Required Courses (12 units)

Choose at least two courses from the following:

COSC 645	Applied Cryptography (3)
COSC 647	Application Software Security (3)
COSC 683	Security and Internet Algorithms (3)
COSC 734	Network Security (3)
and	
COSC 745	Advanced Topics in Computer Security (3)

Group C—Elective Courses (3–6 units)

Any 600/700-level COSC courses that are not taken in Group A or Group B will be counted as electives. Those who want to take elective courses from a discipline other than COSC must get the COSC program director's approval before enrolling in the course.

Project/Thesis Requirement: COSC 880/Internship/AIT 880 project or COSC 897. Thesis must be in the computer security area.

M.S. in Computer Science: E-Commerce Track (33 units)

Group A—Core Courses (15–18 units)

Same as M.S. in Computer Science.

Group B—Required Courses (12 units)

Choose at least two courses from the following:

COSC 617	Advanced Web Development (3)
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- COSC 641 Fundamentals of
E-Commerce (3)
COSC 643 Internet Supply Chain
Management (3)
COSC 741 E-Commerce Case Studies (3)

and at least two courses from the following:

- COSC 609 Software Project
Management (3)
COSC 612 Software Engineering I (3)
COSC 614 Software Engineering II (3)
COSC 716 Object-Oriented
Methodology (3)

Group C—Elective Courses (3–6 units)

Any 600/700-level COSC courses that are not taken in Group A or Group B will be counted as electives. Those who want to take elective courses from a discipline other than COSC must get the COSC program director's approval before enrolling in the course.

Project/Thesis Requirement: Internship/AIT 880 project or COSC 897. Thesis must be in the E-Commerce area.

Transfer Courses

A student can transfer up to two graduate-level courses from a recognized institution with the approval of the graduate program director.

ENVIRONMENTAL SCIENCE (M.S.)

Degree: Master of Science
Program Director: Steven Lev
410-704-2744
slev@towson.edu
www.towson.edu/ess

The graduate program in Environmental Science is an interdisciplinary program that focuses on environmental issues and problems faced by metropolitan areas. The program is for individuals who are in the environmental work force, are looking to enter the environmental work force, or who are public school teachers who wish to expand their knowledge of environmental sciences of metropolitan areas so they can teach in this specialty. There are four areas of concentration in the pro-

gram: Water Resource Management and Assessment, Biological Resource Management, Wetland Assessment and Management, and Environmental Spatial Analysis. Program graduates are well prepared to work in the environmental consulting area, education, industry, federal, state and county environmental agencies, and nonprofit environmental groups.

Admission Requirements

- Admission to the Graduate School.
- Undergraduate degree (B.A. or B.S.) in biology, chemistry, geology or environmental science with a minimum GPA of 3.00 for full admission, and a minimum GPA of 2.50 for conditional admission.
- Students with an undergraduate degree in another area are required to demonstrate COSC 880/ completion of the following courses with a minimum GPA of 3.00:
 - two terms of introductory biology with laboratory
 - two terms of introductory chemistry with laboratory
 - one term of statistics and one term of calculus*or*
 - two terms of calculus

Send the following admission materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252:

- Completion of the supplemental application form, which can be obtained from the Graduate School, 410-704-2025, or online at www.towson.edu/ess/applying.htm
- Letters of recommendation, as described in the supplemental application form, and the Graduate School recommendation form from three individuals in a position to evaluate your academic potential in this field

Degree Requirements

All M.S. students complete 30 units of graduate work. No more than three courses may be at the 500 level. In addition to completing the core courses listed below, all students choose a concentration and select their elective courses from among those courses appropriate for that concentration (see below).

Option 1: Master of Science with Thesis (30 units)

Four core courses, electives appropriate to the concentration (no more than three 500-level courses) and ENVS 897 or two consecutive terms of ENVS 898.

Option 2: Master of Science without Thesis (30 units)

Four core courses, electives appropriate to the concentration (no more than three 500-level courses) and ENVS 798 (which must be completed successfully the first time attempted).

Required Courses (15 units)

ENVS 601	Topics in Environmental Geology (4)
ENVS 602	Environmental Chemistry (4)
ENVS 603	Environmental Law and Regulation (3)
ENVS 604	Ecosystems Ecology (4)

M.S. Culmination Courses

ENVS 798	Research Practicum (3)
or	
ENVS 897	Research Thesis (6)
or	
Two consecutive terms of ENVS 898 Research Thesis (3)	

Electives

In addition to completing the required core, students choose a concentration listed below and select electives from within it.

Water Resource Management and Assessment Concentration

BIOL 506	Limnology (4)
BIOL 555	Fish Biology (4)
BIOL 601	Current Topics in Biology (3)*
BIOL 609	Aquatic Community Analysis (4)
BIOL 610	Population and Community Biology (3)
BIOL 653	Biology of Freshwater Invertebrates (4)
CHEM 562	Chemical and Bacteriological Studies on Water Pollution (3)
ENVS 630	Concepts of Environmental Engineering (3)

ENVS 635	Wetlands Identification, Conservation and Delineation (4)
ENVS 640	Ecotoxicology (3)
ENVS 645	Fluvial Geomorphology and Hydrology (4)
ENVS 650	Aqueous Geochemistry (4)
GEOG 518	Introduction to Geographic Information Systems (3)
GEOG 523	GIS Application (3)
GEOG 587	Environmental Impact Assessment (3)
GEOG 631	Remote Sensing (3)
GEOG 672-9	Special Topics [i.e., Water Resources Management] (3)*
MATH 545	Sampling Techniques (3)
MATH 575	Mathematical Models (3)
MATH 630	Statistics: An Integrated Approach (4)
MATH 632	Computational Stochastic Modeling (3)

Biological Resources Management Concentration

BIOL 506	Limnology (4)
BIOL 510	Conservation Biology (4)
BIOL 532	Vascular Plant Taxonomy (3)
BIOL 535	Plant Ecology (4)
BIOL 555	Fish Biology (4)
BIOL 556	Ornithology (4)
BIOL 561	Entomology (4)
BIOL 567	Herpetology (4)
BIOL 601	Current Topics in Biology (3)*
BIOL 610	Population and Community Biology (3)
BIOL 635	Physiological Plant Ecology (3)
BIOL 731	Plant Community Ecology (3)
ENVS 635	Wetlands Identification, Conservation and Delineation (4)
ENVS 640	Ecotoxicology (3)
ENVS 645	Fluvial Geomorphology and Hydrology (4)
GEOG 503	Soils and Vegetation (3)
GEOG 587	Environmental Impact Assessment (3)
MATH 545	Sampling Techniques (3)
MATH 575	Mathematical Models (3)
MATH 630	Statistics: An Integrated Approach (4)

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MATH 632 Computational Stochastic Modeling (3)

GEOG 523 GIS Application (3)
GEOG 557 Studies in Natural Hazards (3)

Wetlands Assessment and Management Concentration

BIOL 510 Environmental Conservation (4)
BIOL 518 Microbiology (4)
BIOL 535 Plant Ecology (4)
BIOL 601 Current Topics in Biology (3)*
BIOL 609 Aquatic Community Analysis (4)
BIOL 635 Physiological Plant Ecology (3)
BIOL 731 Plant Community Ecology (3)
ENVS 630 Concepts of Environmental Engineering (3)
ENVS 635 Wetlands Identification, Conservation and Delineation (4)
ENVS 645 Fluvial Geomorphology and Hydrology (4)
ENVS 650 Aqueous Geochemistry (4)
GEOG 518 Introduction to Geographic Information Systems (3)
GEOG 523 GIS Application (3)
GEOG 587 Environmental Impact Assessment (3)
GEOG 672-9 Special Topics [i.e., Water Resources Management] (3)*
MATH 545 Sampling Techniques (3)
MATH 575 Mathematical Models (3)
MATH 630 Statistics: An Integrated Approach (4)
MATH 632 Computational Stochastic Modeling (3)

GEOG 587 Environmental Impact Assessment (3)
GEOG 631 Remote Sensing (3)
GEOG 672-9 Special Topics [i.e., Water Resources Management] (3)*
GEOL 515 Hydrogeology (4)
MATH 545 Sampling Techniques (3)
MATH 575 Mathematical Models (3)
MATH 630 Statistics: An Integrated Approach (4)
MATH 632 Computational Stochastic Modeling (3)

* Courses offered under this number might be appropriate for this concentration. Check with the director.

ENVIRONMENTAL SCIENCE CERTIFICATE

Certificate: Post-Baccalaureate
Program Director: Steven Lev
410-704-2744
slev@towson.edu
www.towson.edu/ess

Certificate Requirements (18 units)

All students wishing to receive a certificate complete a minimum of 18 units of graduate work as follows: Two core courses and additional electives, selected in consultation with an adviser, from one concentration. No more than three 500-level courses can be counted toward the certificate.

Environmental Spatial Analysis Concentration

BIOL 601 Current Topics in Biology (3)*
ENVS 635 Wetlands Identification, Conservation and Delineation (4)
ENVS 645 Fluvial Geomorphology and Hydrology (4)
GEOG 503 Soils and Vegetation (3)
GEOG 516 Quantitative Methods in Geography (3)
GEOG 518 Introduction to Geographic Information Systems (3)

FORENSIC SCIENCE

Degree: Master of Science
Program Director: Mark Profili
410-704-2668
mprofili@towson.edu

Master of Science in Forensic Science program is a molecular biology/biochemistry based program, focusing on forensic DNA analysis. This program has the support of and benefits from a wide variety of talented faculty mem-

bers from the departments of Chemistry and Biological Sciences as well as forensic professionals serving as adjunct faculty. The program is rich with laboratory experience, capped with a research project, internship in a forensic laboratory or a thesis.

The program provides advanced education in the scientific and laboratory problem-solving skills necessary for success in a modern forensic laboratory. The program combines this rigorous training with exposure to the breadth of forensic science disciplines, including forensic science practice, law and ethics. The program is intended for students who are interested in working as forensic scientists in the field. The flexible degree program is also designed to meet the professional development needs of forensic scientists now employed in Maryland and the Mid-Atlantic region. It is currently one of four Professional Science Master's Programs in forensic science in the United States.

The curriculum ensures that each student:

- Develops an understanding of the areas of knowledge that are essential to forensic science: crime scene investigation, physical evidence concepts law/science interface, ethics and professional responsibilities, quality assurance, analytical chemistry and instrumental methods of analysis, microscopy, molecular biology, population genetics, forensic biology, and DNA technologies
- Acquires skills and experiences in the application of basic forensic science concepts and forensic DNA knowledge to problem solving
- Is oriented in professional values, concepts and ethics
- Demonstrates integration of knowledge and skills through a capstone experience, such as a seminar, a research project, an internship or thesis

Admission Requirements

- A B.S./B.A. in biological sciences, chemistry or forensic chemistry is required for full admission. Students with a B.S. in a natural science with two semesters in general chemistry, organic chemistry and general physics,

and at least one semester in general biology, analytical chemistry, statistics, biochemistry, molecular biology and genetics can be considered for admission.

- A GPA of 3.00 in previous science course work and an overall GPA of 3.00 are required for full admission. All GPA calculations for admissions are based upon the last 60 credits of undergraduate and post-baccalaureate study. Students having a GPA of 2.75-2.99 may be given conditional admission. Full admission will be granted after students achieve a GPA of 3.00 in their first 9 graduate units taken at Towson University.

Send the following materials to the Graduate School Office, Towson University, 8000 York Road, Towson MD 21252:

- General application form, application fee and official transcripts, along with the supplemental application form for the Forensic Science program (available from the Graduate School Web site)

Degree Requirements

All students complete 37 units of graduate work. No more than three courses may be taken at the 500 level. In addition to the required courses listed below, all students must select four elective courses, with at least two elective courses from an approved list. To fulfill the capstone requirement students must choose either the Thesis option (6 units) or an Internship (0-3 units) and/or a Research Project (0-6 units).

Required Courses (19 units)

CHEM 568	Forensic Chemistry (3)
FRSC 600	Law and Forensic Science (3)
FRSC 601	Forensic Molecular Biology (3)
FRSC 610	Forensic Serology (3)
FRSC 620	DNA Technologies in Forensic Science (3)
FRSC 621	Advanced DNA Technologies in Forensic Science (3)
FRSC 797	Graduate Seminar for Forensic Science (1)

Electives Courses (12 units)

- CHEM 564 Chemistry of Dangerous Drugs (3)
 CHEM 580 Chemical Toxicology (3)
 CHEM 602 Medicinal Chemistry (3)
 CHEM 610 Applications of Analytical Chemistry (3)
 CHEM 645 Molecular Spectroscopy (3)
 FRSC 650 Forensic Microscopy (3)
 FRSC 660 Death Analysis in Forensic Science (3)
 FRSC 670 Forensic Analytical Methods (3)
 MATH 539 Biostatistics II (3)
- Up to 6 elective units from other disciplines may be taken with permission from the FRSC director.

Capstone Courses (6 units)

- FRSC 880/1 Research Project in Forensic Science (0-6)

and/or

- FRSC 787 Graduate Internship in Forensic Science (0-3)

or

- FRSC 897 Thesis in Forensic Science (6)

MATHEMATICS EDUCATION

Degree: Master of Science
 Program Director: Wei Sun
 410-704-4921
 wsun@towson.edu

The Master of Science in Mathematics Education program at Towson University provides mathematics teachers with advanced study in mathematics, mathematics education and general education. The program offers teachers additional experience in higher-level mathematics to enhance their teaching with additional depth and breadth of content. At the same time, it strengthens their backgrounds in the school mathematics curriculum, instructional practices, assessment and technology. It also provides them a relevant way of satisfying their in-service requirements for professional advancement.

The program offers two tracks: Secondary School and Middle School.

Secondary School Track

The Secondary School Track is open to certified secondary mathematics teachers with a strong mathematics background. Students take required and elective courses in mathematics content, mathematics education and general areas of education.

It is expected that graduates of this program will become leaders in mathematics education as master teachers, curriculum developers, mathematics supervisors and other positions that improve the teaching of mathematics in secondary schools. The special strength of this program is the opportunity to study higher mathematics content without leaving the field of school mathematics. The program was designed with on-the-job teachers in mind, with part-time studies in the evenings and summers available; however, full-time students are also welcome.

Middle School Track

The Middle School Track is designed to target the current and future middle school mathematics teachers who are elementary school certified. Many of these teachers only took mathematics courses that were required for elementary school certification. It is clear that such a limited mathematics preparation is not sufficient for teaching middle school mathematics.

The primary components of this program are both mathematics content and mathematics education courses. It is clear that middle school mathematics teachers must have a strong mathematics preparation. Moreover, middle school mathematics teachers need to deeply understand the mathematics they teach. Middle school mathematics teachers also need to be lifelong mathematics learners. Participants in this program will learn mathematics concepts and skills that are meaningful. Techniques that reflect exemplary mathematics teaching also will be presented.

Admission Requirements

Applicants must meet the general requirements for graduate study outlined in this catalog. The applicant must possess current

certification for teaching secondary school mathematics for the Secondary School Track or teaching elementary school for the Middle School Track. In some circumstances which are determined by the director of the program, an applicant's recent two years documented full-time teaching experience may replace the certification requirement. For the Secondary School Track, the applicant should have an undergraduate degree (or M.A.T.) in mathematics with a secondary education concentration or the equivalent, with a minimum undergraduate GPA of 3.00 for full admission and 2.50 for conditional admission. For the Middle School Track, the applicant should have an undergraduate degree in elementary education or the equivalent with a minimum undergraduate GPA of 3.00 for full admission and 2.50 for conditional admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.

Degree Requirements

The student is required to successfully complete a total of at least 36 units of course work (with no more than 9 units below the 600 level), as outlined below.

Section A: Core Required Courses in Mathematics Education, School Mathematics and Pedagogy

Students complete all three courses in this category:

- | | |
|----------|--|
| MATH 602 | Cultural and Philosophical Background of Mathematics (3) |
| MATH 626 | Technology in School Mathematics Teaching and Learning (3) |
| MATH 627 | Curriculum Issues in Secondary School Mathematics (3) |

Section B: Courses in General Education and Pedagogy

Students complete a total of three education related courses. The following courses are examples of such courses:

- | | |
|----------|---|
| MATH 622 | Seminar in Teaching Advanced Placement Calculus (3) |
|----------|---|

- | | |
|----------|--|
| EDUC 601 | Concepts and Issues in Education (3) |
| EDUC 605 | Research and Information Technology (3) |
| EDUC 614 | Assessment and Evaluation in Education (3) |
| EDUC 660 | Teaching in a Multicultural/Multiethnic Society (3) |
| SCED 625 | Teaching in Middle School (3) |
| SCED 635 | Discipline and Classroom Management in Secondary Schools (3) |
| SCED 647 | Advanced Processes of Teaching and Learning (3) |

Section C: Mathematics Foundation

I. Secondary School Track: Students complete five courses, one course from each of the following categories, and one additional elective from any of these categories:

Algebra

- | | |
|----------|---------------------------|
| MATH 563 | Linear Algebra (3) |
| MATH 565 | Theory of Numbers (3) |
| MATH 568 | Algebraic Structures (3) |
| MATH 667 | Algebra of Symmetries (3) |

Analysis

- | | |
|------------------------|--------------------------------|
| MATH 535 | Numerical Analysis (3) |
| MATH 576 | Introductory Real Analysis (4) |
| <i>Or—but not both</i> | |
| MATH 628 | Real Analysis for Teachers (3) |
| MATH 577 | Complex Analysis (3) |
| MATH 578 | Topology (3) |
| MATH 579 | Advanced Calculus (3) |

Geometry

- | | |
|----------|---|
| MATH 557 | Differential Geometry (3) |
| MATH 650 | Patterns in Mathematical Designs (3) |
| MATH 653 | Topics in Geometry (3) |
| MATH 671 | Chaotic Dynamics and Fractal Geometry (3) |

Statistics/Probability

- | | |
|----------|----------------------------------|
| MATH 531 | Probability (4) |
| MATH 532 | Mathematical Statistics (3) |
| MATH 543 | Applied Analysis of Variance (3) |

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MATH 630 Statistics: An Integrated Approach(4)

MATH 651 Mathematics of Fuzzy Logic (3)

II. Middle School Track: *Students complete the following five courses:*

MTED 611 Algebra for Middle School Teachers (3)

MTED 612 Data Analysis for Middle School Teachers (3)

MTED 613 Mathematical Modeling for Middle School Teachers (3)

MTED 614 Calculus through Technology for Middle School Teachers (3)

MTED 615 Geometry for Middle School Teachers (3)

Section D: Mathematics Methods

I. Secondary School Track:

MATH 625 Seminar in Mathematics Education for Secondary School Teachers (3)

II. Middle School Track:

MTED 605 Middle School Mathematical Methods and Problem (3)

SCIENCE EDUCATION

Degree: Master of Science

Program Director: Sarah Haines

410-704-2926

shaines@towson.edu

NOTE: This program is not currently admitting new students.

The Master of Science in Science Education is designed to enhance the content knowledge and teaching skills of Maryland state high school science teachers. The program will prepare them for national board certification through the National Board for Professional Teaching Standards (NBPTS).

Educational objectives of this program are to enhance the depth of content knowledge of

students within the scientific discipline; train students in the practice of science, including the design and execution of controlled experiments, data analysis, knowledge application and reporting; and provide the students with the most recent knowledge on best practices in teaching science, including recent advances in pedagogy, authentic assessment, the use of state and national standards, and the application of instructional technology.

A diverse course offering of primarily 600- and 700-level courses is available in the evening to accommodate working teachers.

Teachers may choose a Biology, a Chemistry or an Earth and Environmental Science track under the Master of Science in Science Education program.

General Admission Requirements

- Secondary school teacher certification.
- Bachelor of Science degree in a science or a minimum of 24 undergraduate credits in science with course work in general chemistry, organic chemistry, mathematics and physics.
- GPA of 3.00 in previous science course work and an overall GPA of 3.00 is required for full admission. Students lacking key prerequisites and/or having a GPA of 2.50-2.99 may be given conditional admission. Any student admitted conditionally may be required to make up deficiencies in prerequisites and/or achieve a GPA of 3.00 in their first 9 graduate units taken at Towson University.

Send the following admission materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252:

- Three letters of recommendation from instructors or supervisors
- A one-page statement of intent

General Degree Requirements

Students will obtain a non-thesis Master of Science degree through a combination of course work in scientific content areas and education, and optional research projects. Degree requirements consist of 36 units of course work.

Biology Track

Admission Requirements

- Secondary school teacher certification.
- Bachelor of Science degree in the biological sciences or a minimum of 24 undergraduate credits in biology with course work in general chemistry, organic chemistry, mathematics and physics.
- GPA of 3.00 in previous biology course work and an overall GPA of 3.00 is required for full admission.
- Meet all general admission requirements noted above.

Degree Requirements

Students will obtain a non-thesis Master of Science degree through a combination of course work in scientific content areas and education, and optional research projects. Degree requirements consist of 36 units of course work. No more than 9 units may be taken at the 500 level. No more than one elective course outside the discipline content area will be counted toward the degree. Approval of the graduate director will be required before taking such an elective.

Students may earn units for participation in optional research projects (BIOL 701 Non-Thesis Laboratory Research) and will be encouraged to do so with faculty at Towson University or through an external internship opportunity.

Required Courses (21–22 units)

BIOL 602	Molecular Biology (3)
BIOL 604	Mechanisms of Animal Physiology (3)
BIOL 610	Population and Community Biology (3)
BIOL 797	Graduate Seminar (1)
ISTC 655	Media Design and Production (3)
SCED 647	Advanced Teaching and Learning Processes, Secondary (3)
SCED 781	Integrated Professional Practice Seminar (2)

or

SCIE 7xx	Independent Study: National Board Certification (2)
SCIE 6xx	Assessment Strategies and Practices in Science (3)

Electives (14–15 units)

Choose at least one course from each of the following three categories:

Category A: Organismal Biology Evolution and Ecology

BIOL 502	General Ecology (4)
BIOL 506	Limnology (4)
BIOL 510	Environmental Conservation (4)
BIOL 513	Evolution (3)
BIOL 530	Horticulture (4)
BIOL 532	Vascular Plant Taxonomy (4)
BIOL 535	Plant Ecology (4)
BIOL 553	Invertebrate Zoology (4)
BIOL 555	Fish Biology (4)
BIOL 556	Ornithology (4)
BIOL 561	Entomology (4)
BIOL 567	Herpetology (4)
BIOL 571	Animal Behavior (4)
BIOL 601	Current Topics in Biology (3)
BIOL 607	Physiological Animal Ecology (3)
BIOL 609	Aquatic Community Analysis (4)
BIOL 613	Animal Communication (3)
BIOL 635	Physiological Plant Ecology (3)
BIOL 636	Plant Physiological Ecology: Methods and Instrumentation (2)
BIOL 653	Biology of Freshwater Invertebrates (4)
BIOL 6xx	Landscape Ecology (3)
BIOL 6xx	Biostatistics, Data Analysis and Interpretation (3)
BIOL 731	Plant Community Ecology (3)
BIOL 781	Recent Advances in Biology (3) ¹
ENVS 604	Ecosystems Ecology (3)

Category B: Physiology

BIOL 525	Dissection of the Upper Extremities (2)
BIOL 536	Plant Physiology (4)
BIOL 563	Animal Embryology (4)

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BIOL 565	Mammalian Physiology (4)
BIOL 568	Endocrinology (3)
BIOL 569	Comparative Animal Physiology (4)
BIOL 601	Current Topics in Biology (3) ¹
BIOL 606	Biochemical Adaptation (3)
BIOL 607	Physiological Animal Ecology (3)
BIOL 617	Molecular Mechanisms of Development (3)
BIOL 635	Physiological Plant Ecology (3)
BIOL 636	Plant Physiological Ecology: Methods and Instrumentation (2)
BIOL 651	Osmoregulation (3)
BIOL 781	Recent Advances in Biology (3) ¹

Category C: Cellular and Molecular Biology

BIOL 508	Cell Biology (4)
BIOL 515	Medical Microbiology (4) ¹
BIOL 518	Microbiology (4)
BIOL 521	Immunology (4)
BIOL 528	Virology (3)
BIOL 560	Histology (4)
BIOL 585	Seminar in Microbiology and Cell Biology (1)
BIOL 601	Current Topics in Biology (3) ¹
BIOL 612	Molecular Ecology and Evolution (3)
BIOL 614	Applied Biotechnology (3)
BIOL 615	Pathogenic Microbiology (3)
BIOL 616	Membrane Biology (3)
BIOL 617	Molecular Mechanisms of Development (3) ²
BIOL 618	Molecular Medicine (3)
BIOL 622	Gene Expression and Regulation (3) ²
BIOL 781	Recent Advances in Biology (3) ¹

1 Category determined by graduate director.

2 These courses are in the development/approval process.

Chemistry Track

Admission Requirements

- Secondary school teacher certification.
- Bachelor of Science degree in a natural science with course work in general chemistry, organic chemistry, mathematics and physics or a minimum of 24 undergraduate credits in a natural science in addition to course work in general chemistry, organic chemistry, mathematics and physics.
- GPA of 3.00 in previous science course work and an overall GPA of 3.00 is required for full admission.
- Meet all general admission requirements noted above.

Degree Requirements

Students will obtain a non-thesis Master of Science degree through a combination of course work in Chemistry and Education, and an optional research project. Degree requirements consist of 36 units of course work. No more than 9 units may be taken at the 500 level. No more than one elective course outside the discipline content area will be counted toward the degree. Approval of the graduate director will be required before taking such an elective.

Students may earn units for participation in optional research projects (CHEM 505 Introduction to Research in Chemistry) and will be encouraged to do so with faculty at Towson University or through an external internship opportunity.

Required Courses

Science Education and Professional Education (11 units)

ISTC 655	Media Design and Production (3)
SCED 647	Advanced Teaching and Learning Processes, Secondary (3)
SCIE 6xx	Assessment Strategies and Practices in Science (3)
SCED 781	Integrated Professional Practice Seminar (2)

or

SCIE 7xx Independent Study: National Board Certification (2)

Chemistry (19-25 units)

CHEM 585 Principles of Chemistry (3)*
 CHEM 586 Laboratory Experiment Design (3)
 CHEM 588 Organic Chemistry Concepts (3)*
 CHEM 601 Biochemistry and Molecular Biology (3)
 CHEM 602 Medicinal Chemistry (3)
 CHEM 603 Inorganic Materials Chemistry (3)
 CHEM 641 Physical Chemistry Concepts (4)
 ENVS 602 Environmental Chemistry (3)

Electives (0-6 units)**

CHEM 505 Introduction to Research in Chemistry (1-3)
 CHEM 562 Chemical and Bacterial Studies on Water Pollution (3)
 CHEM 563 Chemistry of Dangerous Drugs (3)
 CHEM 568 Forensic Chemistry
 CHEM 610 Applications of Analytical Chemistry (3)
 CHEM 645 Molecular Spectroscopy (3)
 ENVS 580 Chemical Toxicology (3)

*Requirement may be met by competency exam.

**Depending on results of competency exam.

Earth and Environmental Science Track

Admission Requirements

- Secondary school teacher certification.
- Bachelor of Science degree in geology or environmental science or a minimum of 24 undergraduate credits in geology or environmental science with course work in chemistry and biology
- GPA of 3.00 in previous biology course work and an overall GPA of 3.00 is required for full admission. Students lacking key prerequisites and/or having a GPA of 2.50-2.99 may be given conditional admission. Any

student admitted conditionally may be required to make up deficiencies in prerequisites and/or achieve a grade of no lower than B in their first 9 graduate units taken at Towson University.

- Three letters of recommendation from instructors or supervisors.
- A one-page statement of intent.

Degree Requirements

Students will obtain a non-thesis Master of Science degree through a combination of course work in scientific content areas and education, and optional research projects. Degree requirements consist of 36 units of course work. No more than 9 units may be taken at the 500 level. Approval of the graduate director will be required before taking an elective not already listed as part of the curriculum.

Students may earn units for participation in optional research projects (ENVS 670) and will be encouraged to do so with faculty at Towson University or through an external internship opportunity.

Required Courses

Science Education and Professional Education (11 units)

SCIE 6xx Assessment Strategies and Practices in Science (3)
 SCED 647 Advanced Teaching and Learning Processes, Secondary (3)
 ISTC 655 Media Design and Production (3)
 SCED 781 Integrated Professional Practice Seminar (2)

or

SCIE 7xx Independent Study: National Board Certification (2)

Earth and Environmental Science Core (8-12 units)

Choose at least two from this category:

ENVS 601 Topics in Environmental Geology (4)

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- ENVS 602 Environmental Chemistry (4)
ENVS 604 Ecosystems Ecology (4)

Electives (13-17 units)

- BIOL 510 Conservation Biology (4)
BIOL 610 Population and Community Biology (3)
BIOL 635 Physiological Plant Ecology (3)
BIOL 731 Plant Community Ecology (3)
CHEM 562 Chemical and Bacteriological Studies on Water Pollution (3)
ENVS 635 Wetlands Identification, Conservation and Delineation (4)
ENVS 640 Ecotoxicology (3)
ENVS 645 Fluvial Geomorphology and Hydrology (4)
ENVS 650 Aqueous Geochemistry (4)
ENVS 680 Special Topics in Environmental Science (3)

- GEOG 518 Introduction to Geographic Information Systems (3)
GEOG 523 GIS Application (3)
GEOG 557 Studies in Natural Hazards (3)
GEOG 587 Environmental Impact Assessment (3)
GEOG 631 Remote Sensing (3)
GEOG 672-9 Special Topics [i.e., Water Resources Management] (3)*
GEOL 515 Hydrogeology (4)
GEOL 521 Structural Geology (4)
GEOL 531 Mineralogy (4)
GEOL 533 Petrology of Igneous and Metamorphic Rocks (4)
GEOL 541 Sedimentology and Stratigraphy (4)
GEOL 557 Physical Oceanography (3)

*Courses offered under this number might be appropriate for this concentration. Check with the director.



INTERDISCIPLINARY PROGRAMS

Interdisciplinary programs have become an increasingly important part of Towson University's role as a premier metropolitan university. The rise of new interdisciplinary fields and revision of traditional curricula are reflected in the diverse group of programs listed here. These programs enhance the strong liberal arts and sciences core while preparing students for professional and applied fields. They also provide opportunities for new forms of student learning and build on the strengths of the faculty.

As Towson University strives to provide all of its students with the knowledge and skills for entry into the professional world, interdisciplinary programs will continue to expand throughout the curriculum. These programs will also help to create an environment that stimulates commitment to lifelong learning and allows for continued personal growth.

Certificate of Advance Study Program (post-master's)

Organizational Change

Master's Degree Programs

Humanities

(See College of Liberal Arts section)

Integrated Homeland Security Management

Professional Studies Social Science

(See College of Liberal Arts section)

Women's Studies

(See College of Liberal Arts section)

Post-Baccalaureate Certificate Programs

Family-Professional Collaboration

(See College of Liberal Arts section)

Management and Leadership Development

Risk Assessment Management

Women's Studies

(See College of Liberal Arts section)

INTEGRATED HOMELAND SECURITY MANAGEMENT AND CERTIFICATE IN SECURITY ASSESSMENT AND MANAGEMENT

Degree: Master of Science and

Post-Baccalaureate Certificate

Program Director: Michael O'Leary

410-704-3968

moleary@towson.edu

The Master of Science degree in Integrated Homeland Security Management and the embedded graduate certificate in Security Assessment and Management form an interdisciplinary program to provide an applied graduate education for personnel working in various areas of homeland security, risk assessment and management, emergency response and crisis communications. The intent is to provide students with advanced studies and experience to extend their expertise in one area while reaching out to work with other areas in an integrated response.

The core courses provide a common base for all students in the program to familiarize them with the overall issues and concerns of homeland security. The students do additional work in their own areas of expertise in the specialized courses, but reach across to other areas by taking introductory graduate level courses in three other areas. The project is a key part of the program, providing hands-on experience in dealing with real-world problems of homeland security. The project work begins midway through the program and continues to provide a sense of reality as the student moves through the program. Ideally, students will work together in joint projects, sharing skills and gaining experience in collaborative problem solving.

The entire IHSM program is delivered online. It is possible for a student to complete the program entirely online. The application process and curriculum requirements are identical to those for students attending courses on Towson's campus.

Admission Requirements

Admission requirements for the master's degree are the same as for the post-baccalaureate certificate. Applicants to the program:

- Must have a bachelor's degree in a relevant field (for example, political science, health science, information technology, or others)
- Must have a cumulative GPA of 3.00 on a scale of 4.00 (2.5 for conditional admission) on the most recent 60 units of graduate or undergraduate work
- Three years post-bachelor's experience working in health, information technology, security or related areas is recommended.
- Must have a minimum TOEFL score of 550 (where applicable)
- Must submit a résumé and a one-to-two page statement describing their past relevant experience, their career goals, and how they expect this program to support their career goals.
- Must submit two reference letters attesting to their ability to withstand the rigors of a graduate education

Online Instruction

The entire Integrated Homeland Security Management program is delivered online. The goal of the online program is to provide students all the necessary resources at their finger tips. Students participate in online classroom discussions and review class materials whenever they choose. The university utilizes Blackboard web as the learning platform for all online courses, so there is a consistent format from course to course. The application process and curriculum requirements for online learners are identical to those for students attending courses on Towson's campus.

Degree Requirements

Students must complete a total of at least 36 units:

- 15 units in five core courses taken by all students
- 9 units in three specialization courses
- 6 units in two collateral courses from other specialization areas
- 3 units of internship/project

- 3 units in one elective course

These are outlined below.

Required Courses (15 units)

IHSM 611	Critical National Infrastructures (3)
IHSM 612	Planning, Prevention and Management of Risk (3)
IHSM 613	Emergency Communication and Management (3)
IHSM 614	Team Building and Leadership Skills (3)
IHSM 615	Analysis/Assessment of Strategic and Tactical Planning (3)

NOTE: The five core courses above will constitute the Certificate in Security Assessment and Management.

Specialized Courses (9 units)

Choose three courses in one of the three areas of individual specialization:

Information Assurance

IHSM 621	Information Systems Vulnerability and Risk Analysis (3)
IHSM 622	Application Software Security (3)
IHSM 623	Network Security (3)

Health Preparedness

IHSM 631	Mental Health Emergency Preparedness and Response (3)
IHSM 632	Bioterrorism and Public Health Emergency Preparedness (3)
IHSM 633	Impact of Security and Disaster Response on Community Health and Culture (3)

Security Policy

IHSM 641	Terrorism and Political Violence (3)
IHSM 642	Intelligence and Homeland Security (3)
IHSM 643	Homeland Security and Constitutional Rights (3)

Collateral courses (6 units)

Choose one introductory course in each of the two areas outside your specialization area:

Information Assurance

IHSM 620	Introduction to Information Assurance (3)
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Health Preparedness

IHSM 630	Health System Preparedness (3)
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Security Policy

IHSM 640	U.S. Homeland Security Policy (3)
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Elective Courses (3 units)

Each student must take one elective course from the following:

IHSM 650	Transportation Security Management (3)
IHSM 660	GIS Applications: Homeland Security and Emergency Management (3)

Graduate Project (3 units)

The extended project offers a practical, real-world problem-solving experience for the student. Ideally, students will form working groups to take on a project from an agency of federal, state or local government, or a private business. They will begin work on the project after taking 15 units of course work and continue the project while completing other course work.

IHSM 881	Project I (3)
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NOTE 1: Following regular policies of course transfers, it may be possible to transfer courses from similar programs at other universities, notably through collaboration with other universities in the Maryland Alliance for Information Security and Assurance (MAISA), which is an initiative funded by NSF.

NOTE 2: By taking three additional courses, a student in the Information Assurance Track can also obtain the Graduate Certificate in Information Security and Assurance.

MANAGEMENT AND LEADERSHIP DEVELOPMENT

Certificate: Post-Baccalaureate
 Program Director: Alan Clady
 410-704-3069
 aclady@towson.edu

The Management and Leadership Development Certificate program is an interdisciplinary graduate program that focuses on the understanding, development and application of management and leadership for students with undergraduate training in non-business fields such as education, communications, engineering, social or natural sciences, and medical professions. The program is designed for professionals seeking to develop and advance their knowledge and skills in management and leadership. It aims to help leaders become more effective in managing people and their behavior in organizations.

The interdisciplinary design of the program allows students to benefit from a breadth of developmental experiences in team building, communications management, organizational behavior, organization design, development and change through a variety of learning approaches such as case studies, experiential small group activities and self-assessments. The program is intended for students who are full-time professionals, preferably with at least two to three years of work experience, seeking to advance their careers and gain skills for managing and leading people in the workplace. The focus of this program is on executive leadership activities that allow organizational members to embrace change and create a learning environment through employee empowerment and motivation, teamwork, information sharing, work design and effective organizational structure and design.

The program's flexibility makes it ideal to accommodate the demands of a working professional's schedule. It can normally be completed in one to two years. All courses are offered on campus at Towson University.

Admission Requirements

- A baccalaureate degree.
- An undergraduate GPA of minimum 3.00 (2.50 for conditional admission) based on the last 60 credits of undergraduate and post-baccalaureate study. An admission exception policy is in place for eligible candidates with undergraduate degrees obtained at least 10 years ago.
- A resumé sent to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252.

Certificate Requirements (15 units)

HRD 606	Organization Behavior (3)
HRD 640	Leadership Theory and Practice (3)
HRD 643	Administrative Theory and Practice (3)
HRD 644	Group Dynamics and Team Building (3)
HRD 646	Conflict Management and Negotiation

ORGANIZATIONAL CHANGE

Certificate: Certificate of Advanced Study
 Program Director: Jane Neapolitan
 410-704-4954
 jneapolitan@towson.edu

The Certificate of Advanced Study (C.A.S.) in Organizational Change is an interdisciplinary program designed for students wishing to continue their education at the post-master's level. The 30-unit program consists of courses intended to focus on issues related to the participant's organization and professional goals. Building on a curriculum covering areas such as professional development, instructional leadership and human resource management, program participants will have an opportunity to continue their professional development to become leaders within education, and community-based organizations. Other courses may be selected based on professional needs through consultation with the adviser.

Admission Requirements

- Completion of master's degree in human resource development, education, administration or related field from a regionally accredited institution
- A minimum graduate GPA of 3.10 for full admission; 3.00 for conditional admission
- Minimum TOEFL score of 550 (where applicable)

Send the following admission materials to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252:

- Two letters of recommendation from individuals who can attest to the applicant's academic background, professional experience and/or personal qualities
- Letter of application to address commitment to the profession, caring for success of students and collaboration with the community

Administrator I Track

This post-master's program is MSDE-approved for those who seek Administrator I certification and did not complete an MSDE approved master's program for Administrator I.

This program allows those education professionals currently certified or licensed, and working in schools or school systems, to be eligible to receive Administrator I certification required for Principal, Assistant Principal or Supervisor. Certification for Administrator II requires the passing of the SLLA exam in addition to the requirements for Administrator I.

Requirements For Certification

ILPD 603	School Law (3)
ILPD 667	Curriculum and Assessment for School Leaders (3)
ILPD 668	Leadership and Group Dynamics (3)
ILPD 716	Leadership of the Schools (3)
ILPD 781	Seminar in Supervision (3)
ILPD 797	Internship in Educational Leadership (3)

NOTE: Students must take the comprehensive examination prior to enrolling in the Internship.

Electives (12 units)

ILPD 740	Data Based Decision Making for Curriculum and Instruction (3)
ILPD 741	Seminar in Liability for Professionals (3)
ILPD 742	Transformational Leadership and Professional Development (3)
ILPD 743	Learning Communities and Organizational Change (3)
IDLP 744	Interpersonal Relations and Group Dynamics: Theory & Practice (3)
ISTC 702	Leadership and Instructional Technology (3)

Human Resource Development Track (30 units)**

COSC 605	Human Factors and Computer Interaction (3)
HLTH 649	Program Evaluation (3)
HRD 602	Leadership Theory and Practice (3)
HRD 629	Personnel Selection (3)
HRD 641	Change in the Workplace (3)
HRD 642	Organizational Behavior (3)
HRD 644	Team Building (3)
ILPD 603	School Law (3) *
ILPD 667	Curriculum and Assessment for School Leaders (3)
ILPD 668	Leadership and Group Dynamics (3)
ILPD 740	Data-Based Decision-Making for Curriculum and Instruction (3)
ILPD 741	Seminar in Liability for Professionals in Education (3)
ILPD 745	School Budgeting and Fiscal Planning (3)
ISTC 605	Web-Based Instruction in Education (3)
ISTC 617	Distance Education in Theory and Practice (3)
ISTC 667	Instructional Development (3)
ISTC 702	Educational Leadership and Technology (3)

* Courses that are approved for Administrator I Certification.

**Other courses may be selected as suitable to particular organizational or professional needs through consultation with the adviser.

PROFESSIONAL STUDIES

Degree: Master of Arts

Program Director: James M. Smith

410-704-4620

jmsmith@towson.edu

The Master of Arts in Professional Studies is an interdisciplinary program that crosses traditional academic boundaries and provides a solid intellectual framework within which students create their own degree plans. The core curriculum provides a foundation in research, writing and the liberal arts; and a culminating seminar emphasizing a major project provides the capstone for each student's individualized program of study. The core theme of these seminars is globalization and the changing workplace.

This highly flexible program is ideal for the working professional, as each student designs a curriculum that best fits his or her present career needs and future aspirations. The program is particularly well suited for students who wish to integrate specialized study with a broader understanding of related fields. It also permits individuals primarily interested in personal growth to design a program that corresponds with their interests.

Although degree plans may be built around traditional academic disciplines, many students combine courses from such practical areas of study as:

- Digital media and communication
- Information technology and applied systems theory
- Management and administration
- Public policy and regional planning
- Human resources
- Health care
- Education
- Professional writing

Others may emphasize courses from the humanities, fine arts, and social sciences.

An individualized program of study places special responsibilities on the student. In consultation with the program director, the entering student must design and submit a formal plan of study for approval. (A template is available on the program Web site.) This plan of study must be approved by the program director no later than the term in which the student completes 12 units toward the degree.

The program is committed to offering working professionals flexible and convenient ways to earn an advanced degree through collaborative learning and independent study.

Admission Requirements

A GPA of 3.00 (2.50 for conditional admission) is required. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study. Additionally, the applicant must submit an essay that includes:

- the student's reasons for wishing to enter the program
- an explanation of the ways in which the Professional Studies program will enable the applicant to achieve personal and/or professional goals.
- a preliminary overview of the student's proposed plan of study

Send this essay to the Graduate School Office, Towson University, 8000 York Road, Towson, MD 21252.

Degree Requirements

Plan of Study

An individualized plan of study must be approved by the director of the program *no later than the term in which the student completes 12 units toward the degree*. The plan of study should be developed in consultation with the program director and follow the template available on the program Web site. Subsequent changes in a student's individualized plan of study require the approval of the program director.

Required Courses (12 units)

LBPS 601 Approaches to Graduate Research (3)

A 600-700-level writing course, selected from courses offered in the Professional Writing (PRWR) program or approved by the program director (3)

A 600-700-level course in the liberal arts, selected from courses offered in the following programs: Humanities (HUMA), Social Sciences (SOSC), History (HIST), Women's Studies (WMST), Geography (GEOG), or English(ENGL) (3)

LBPS 602 Culminating Seminar in Professional Studies (3)

The introductory seminar should be taken within the first 9 units of degree work. The culminating seminar should be taken during the student's final term in the program. Students must earn a grade of A or B in each of

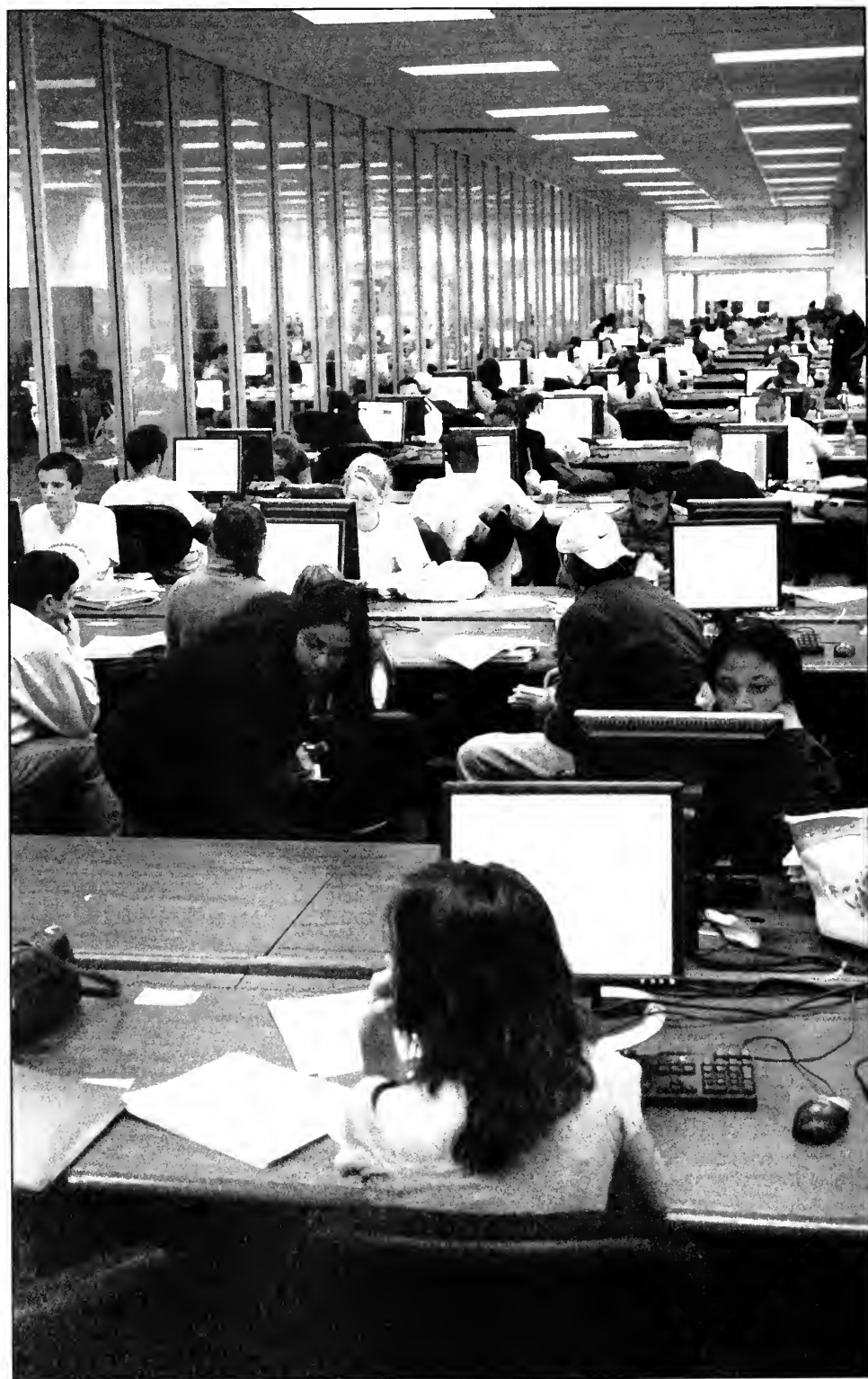
these seminars. They may be repeated once for the purpose of grade change.

Electives within the Individualized Program of Study (24 units)

Each student's individualized program of study comprises 24 units of elective courses. These electives must include courses from at least three disciplines, and a maximum of 15 units may be taken in any one discipline. No more than three 500-level graduate courses can be counted toward the degree. A minimum of 12 units of electives must be earned at Towson University. Up to 12 units may be taken at another University System of Maryland institution or at Morgan State University with the permission of the program director.

NOTE: Earn a Graduate Certificate in Family-Professional Collaboration, Management and Leadership Development and/or Women's Studies with your elective units. See the appropriate sections in this catalog for more information.





STUDENT SERVICES

Albert S. Cook Library

410-704-2456 Circulation Services

410-704-2462 Reference and

Instruction Services

<http://cooklibrary.towson.edu>

The Albert S. Cook Library, centrally located on campus, supports the academic and scholarly endeavors of students and faculty with a wide array of resources, services, and learning opportunities.

The Learning Commons on the library's main floor (third floor of the building) serves as an information hub with 170 computer workstations, connecting users to library catalogs, electronic databases, online journals, electronic books, and the world of information on the Internet. Nine study cubicles, each equipped with a 24-inch monitor, computer and dual mice, provide collaborative work space for small groups of students. An electronic classroom, leisure reading collection and circulation services are located on the library's main floor. More than 100 additional computer workstations are available on the third, fourth and fifth floors of the library, and a computer lab is housed on the first floor. Photocopy machines, networked printers, wireless access to the Internet, and quiet study areas are located throughout the library. The library provides a media listening/viewing lab, and Starbucks™ is located conveniently in the library lobby.

Research and reference support are available in person and virtually via instant messaging (IM=tucookchat), e-mail, the library's Web site and telephone. Reference librarians teach students how to identify, locate, obtain, analyze and use print and digital information through scheduled classes, individualized assistance and research by appointment.

Cook Library's online catalog and electronic resources are accessible to TU students any time, anywhere through <http://cooklibrary.towson.edu>. In addition to more than 150 electronic databases and 5,600-plus print and electronic journals owned by Cook Library, TU students and faculty have access to more than 56,000 electronic journals. The library's collection also includes 570,000-plus books, 840,000 microforms, and nearly 18,000 CDs, films, videos and DVDs. Cook Library is a depository for Maryland state documents.

Towson students may request books from the University System of Maryland and Affiliated Institutions (USMAI) libraries, and the material will be delivered to Cook Library's Circulation Desk. Students also have access to materials from most Baltimore college and university libraries. Materials needed for academic research may be obtained via interlibrary loan from additional libraries as well.

African American Cultural Center

University Union 313

410-704-2051

The African American Cultural Center (AACC) sponsors programs and activities that reflect the lifestyles, history and culture of people of African descent. The center also seeks to stimulate scholarship in the areas of African American, African-Caribbean, African studies and student debate. Each February, the AACC presents the Martin Luther King celebration as part of a month-long series of Black History Month programs. The center sponsors the Towson University Gospel Choir, Infinite Praise Ministries, and the Kuumba Players Theater Troupe, who perform on campus and around the Baltimore metropolitan area. The

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AACC hosts lectures and discussion groups, provides information and referrals, showcases amateur and professional artists, and sponsors the Distinguished Black Scholars Lecture Series. The center, which houses an evergrowing collection of art, music and popular and scholarly literature, provides a comfortable setting in which to study, relax and socialize. Student or staff groups may reserve the center for meetings and informal gatherings.

The center houses a wealth of information concerning graduate schools, fellowships, scholarships, employment opportunities and other news relevant to minority students, faculty and staff. The information is updated regularly. Students are invited to stop by often; no appointment is necessary.

Campus Recreation Services

Burdick Hall 151

410-704-2367 Main Office

410-704-2771 Rec Check Info Line

www.towson.edu/campusrec

Campus Recreation Services (CRS) is comprised of six program areas: Adventure Pursuits, Aquatics, Fitness and Wellness, Informal Recreation, Intramural Sports and Sport Clubs. The programs utilize the C.R.i.B. Fitness Center and Indoor Climbing Gym, three gymnasiums, Burdick field, beach volleyball court and the pool. Programs and facilities are open to Towson University students, faculty and staff with a valid TU OneCard. For hours of operation, please call the Rec Check info line at 410-704-2771 or find us on the Web at www.towson.edu/campusrec.

The Adventure Pursuits program allows students to explore the world's wilderness through Project Marj, one of Towson University's longest running wilderness orientation programs. Project Marj is a weeklong optional orientation program that takes place at the end of August. It involves backpacking and rock climbing, while allowing students to make friends and find out more about the university. Adventure Pursuits also includes the new 33-foot indoor climbing gym, the outdoor equipment rental program and a free kayaking clinic in the Burdick pool.

The Aquatics program is housed in the 25-yard Burdick Pool, home to the varsity swimming and diving team. A minimum of six lanes are always available for lap swimming during open swim. Aquatics also run the Tigerfish Athletic Club (TAC), with swim lessons for all ages, diving clinics and lifeguard training.

The Fitness and Wellness program offers approximately 16 aerobics classes each week during the fall and spring terms. The class schedule varies from term to term, but runs Monday-Friday at various times. The program also offers personal conditioning, fitness assessments and instructional clinics.

The Informal Recreation program offers the use of recreation facilities when they are not in use or reserved for academic classes, Athletics or CRS programming. Students must show a valid TU OneCard for entrance.

The Intramural Sports program allows students, faculty and staff to form their own sports teams to compete against other teams on campus. Intramural Sports offers approximately 20 sports throughout the year, including flag football, soccer, basketball, volleyball, softball and table tennis. All skill levels are encouraged to play. To join a team or make one of your own, please call 410-704-3649.

The Sport Clubs program offers students the opportunity to play socially among themselves and compete against other schools. The Sport Clubs program is comprised of 25 student-run clubs: Badminton, Baseball, Bowling, Cycling, Dodgeball, Field Hockey, Figure Skating, Ice Hockey, Martial Arts, Men's Lacrosse, Men's Ultimate Frisbee, Men's Volleyball, Outdoor Adventures Unlimited, Rock Climbing Contingent, Roller Hockey, Rugby, Soccer, Stunt, Surf, Tennis, Track & Field, Women's Lacrosse, Women's Ultimate Frisbee, Women's Volleyball, and Wrestling.

The Career Center at Towson University

7800 York Road, Suite 206

410-704-2233

www.towson.edu/careercenter

The Career Center helps students prepare and search for meaningful and satisfying careers.

The center also provides services and information leading to academic internship opportunities and on- and off-campus, full-time and part-time employment. To learn more about the programs, services and events offered by The Career Center, visit the Web site, www.towson.edu/careercenter, or call 410-704-2233 to schedule an appointment.

The Career Center Services for Students

Hire@TU (Web-based resume and job search system)

Career fairs/job fairs

Career counseling/advising

Career Resource Library

Graduate school information

On-campus interviewing

On- and off-campus part-time jobs

Internships

Professional development seminars

Career development and decision-making

Counseling Center

Glen Esk

410-704-2512

Graduate School life presents many stresses, life changes and opportunities for personal growth. To meet these challenges, it is often necessary to resolve emotional problems, learn new personal and social skills and work toward developing well-chosen career and personal goals. The Counseling Center provides a variety of professional services for students who are experiencing personal difficulty or who are seeking help toward a greater level of personal effectiveness or satisfaction.

Some areas which may be addressed by the Counseling Center include:

- Eliminating blocks to educational or career achievement
- Career development and decision-making
- Relationships with friends, roommates, parents, romantic partner or spouse
- Family problems
- Grief and loss
- Sexual matters
- Self-esteem and self-confidence
- Anxiety, depression and anger
- Physical stress and tension

- Eating disorders
- Physical or sexual mistreatment or abuse
- Alcohol and drug-related problems
- Suicidal or self-destructive behavior or thoughts
- Problems encountered in the university environment

Most services at the Counseling Center are provided free of charge.

The Counseling Center is staffed by psychologists, substance abuse counselors, consulting psychiatrists and psychologists working under supervision. All services at the Counseling Center are confidential. For more information or to make an appointment, call or drop by Glen Esk, the white house on the northeast corner of the campus.

Group, Individual and Couples Counseling

Several kinds of personal counseling are available at the Counseling Center. Your initial session can be of immediate assistance as your counselor offers a listening ear, helps you to resolve problems and informs you about what kinds of further help might be appropriate. A series of individual counseling sessions offers a private setting for resolving personal difficulty and achieving personal growth. Counseling groups are particularly helpful for many concerns, giving members an opportunity to share experiences, solve problems and practice new skills. Couples counseling provides a safe atmosphere for couples to examine and improve their relationships. Psychiatric evaluations and medication are also available when needed.

Alcohol and Drug Abuse Program

The Counseling Center offers state-certified alcohol and other drug treatment programs (both individual and group services) intended to meet various personal needs. Services can assist in achieving a greater awareness of a problem or correcting a problem through education and recovery.

Life and Career Planning

The Counseling Center assists students in personal life and decision-making about one's future in a variety of ways. The Career Center

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is the place to go if you seek information about making potential career choices. The Counseling Center can help if you feel that your career decision-making is complicated by personal concerns. A self-help library houses information on academic success, world of work options and personal wellness. DISCOVER, a Web-based career guidance program, and several forms of vocational assessment are available. Professional staff is available by appointment for students who want to improve decision-making skills, integrate life and academic goals, manage academic and life changes and learn skills necessary for success in the world (e.g., stress management, communication skills, effective problem solving and planful decision-making strategies).

Outreach and Consultation

The Counseling Center staff provides workshops and programs to the Towson University community on various topics, including time management, assertiveness training, stress management and communication skills. We can also work with you to help you develop programs to meet your needs. Staff is also available to consult with students, faculty and staff on various topics, including improving the campus environment, diversity issues or other issues relating to the quality of life at Towson University.

Web Resources

Further information about the Counseling Center, self-help resources, Web-based mental health self-assessments (for Anxiety and depression, alcohol and eating disorders), a Wellness Assessment and DISCOVER (a computer-assisted career guidance program) can be found at www.towson.edu/counseling.

Referrals

Students sometimes need services that are available only outside the Counseling Center, whether on campus or in the surrounding community. Counselors can advise students about a variety of resources and services that may be useful to students. In addition, a referrals assistance specialist is available to assist students in identifying quality mental health

providers in the outside community, and in understanding and using their health insurance for these services.

Hours

The Counseling Center is open Monday through Friday, 8 a.m. – 5 p.m.

Your Initial Contact

Call 410-704-2512 or stop by the Counseling Center to arrange your first appointment with a counselor. Initial appointments are usually available on the same day you contact us or very soon thereafter. If you wish, you may schedule an appointment in advance to fit your schedule more conveniently. Emergency appointments are also available. Your counselor will help you resolve your immediate concerns and determine what kinds of help will be most useful.

Confidentiality

Counseling often deals with very personal and highly private issues. Successful outcome depends on a feeling of freedom on the part of clients to express feelings, attitudes and thoughts with people who respect them and their right to privacy. Interviews conducted are confidential and information is not released except with the clients written permission or as may be required by law. The importance of confidentiality is reflected in the Counseling Center's adherence to the Code of Ethics of the American Psychological Association.

Dining Services

410-704-2302

<http://onecard.towson.edu>

The key word for eating at Towson University is "choice." There are 13 great places to eat at TU. You can dine a la carte at 10 locations on campus, or at two all-you-care-to-eat dining halls. Traditional, unrestricted or block meal plan options are available. Call 410-704-2530 for more information.

Students who have a Dining Points debit account can use their OneCard to save 6 percent sales tax on food purchased at Dining Services locations.

Disability Support Services

Administration Building, 2nd Floor
410-704-2638
410-704-3475
Testing Services Center
410-704-2304

Disability Support Services (DSS) provides services and accommodations to meet the needs of students with disabilities, including students with attention deficit/hyperactivity disorders, blindness/low vision, deafness/ hard of hearing, learning disabilities, medical disabilities, physical disabilities and psychological disabilities. Students with disabilities are encouraged to call and make an appointment to register with DSS as soon as possible after admission to the university to ensure timely provision of services. Even if a student decides that services are not needed immediately, it is advisable to register with the office so that documentation is on file should the services be needed at a later time. Recent documentation from a qualified professional as to the nature of the disability is required for services, and accommodations are provided according to individual need. In addition to arrangements for accommodations, services include the provision of instructional support in the form of time management, study and test-taking strategies, and reading and writing assistance. Access to assistive technology, including disability-specific software and equipment, is provided as well. The Testing Services Center offers accommodated testing services Monday through Thursday, 9:30 a.m. – 5:30 p.m. and Friday, 9:30 a.m. – 1:30 p.m. Students must be registered with DSS and make appointments at least one week in advance. Students who suspect they have a disability but do not have documentation are also encouraged to contact DSS for advice on how to obtain an appropriate evaluation.

Dowell Health Center

Dowell Hall
Appointments and General Information:
410-704-2466
Fax:410-704-3715
Monday through Friday, 8 a.m.–5 p.m .

The Dowell Health Center offers high-quality primary health care to any registered student, regardless of insurance status. The center has an experienced staff of physicians, nurse practitioners, physician assistants, RNs and health educators. Services include treatment of common illnesses and injuries, a full range of sexual health and women's health services, including contraceptives and emergency contraception, anonymous HIV testing, immunization services, lab tests, health education, and a limited formulary of prescription medications. For non-urgent problems, students should make an appointment by calling 410-704-2466 from 8 a.m. –5 p.m.

Charges for Health Center services can be paid by check or billed to the student's university account. The Health Center is in the process of becoming in-network providers with several large insurance plans and beginning fall 2008 will bill those plans directly for covered services. Referrals for X-rays, outside lab and other diagnostic tests, specialty and hospital care are the student's financial responsibility, so we strongly encourage all students to carry health insurance. (see Health Insurance below)

For after-hours medical emergencies, students should call 911 or if living on campus, call 9-911 and notify the University Police, 410-704-2133. For non-emergencies after hours, St. Joseph Medical Center and Greater Baltimore Medical Center, as well as several free-standing urgent care centers are available to provide urgent care to students at their own expense. Check your insurance plan to verify coverage for these services and our Web site for numbers and locations of facilities near campus.

Immunization Requirements

All graduate students taking courses on Towson's main campus or any of its satellite facilities (Shady Grove, Southern Maryland Higher Education Center, HEAT and Hagerstown)

must comply with the university immunization requirements to attend class. (See www.towson.edu/dowellhealthcenter for details.) Records should be sent or faxed to the Dowell Health Center by December 1 (for students entering spring term) or by June 1 (for students entering fall term). Late admits have one month from the date of receiving their admissions packet to submit their health records to avoid jeopardizing their class schedule. Students who fail to comply with the requirements will have a health hold placed on their university account after the add/drop period and will be blocked from registration for the following term until they have come into compliance.

Students exclusively taking courses online, overseas, at their place of employment if employment is off-campus, or at any of the city/county K-12 schools, are exempt from this policy. Immunizations and immune antibody titers are available at the Dowell Health Center for a fee. Students living in on-campus housing must also provide documentation of immunization against meningococcal meningitis or sign a waiver indicating they understand the risks of the disease and decline to be immunized. That form should be returned to the Housing and Residence Life Department.

Health Insurance

Health insurance is strongly recommended to help defray the costs of services at the Health Center and unexpected illness or injury requiring costly hospital care or diagnostic tests. The university offers an excellent 12-month insurance plan that provides coverage for such services at a very reasonable cost and full or partial coverage for most services and drugs provided by the Health Center.

The plan uses the Dowell Health Center as the primary care provider while school is in session and covers services such as specialty referrals, diagnostic tests, surgical procedures and hospital care not available at the Health Center. It will cover urgent care and emergency services at other facilities when the Health Center is closed or the student is away from school. Coverage for spouses and children of enrolled students is available. Policies

can be purchased for the entire year (August 15 – August 14) for one term, or summer only.

Information and enrollment forms for the Towson-sponsored plan are mailed to all registered students that are U.S. citizens or permanent residents in the summer and are available on the Health Center Web site, www.towson.edu/dowellhealthcenter. For additional information, contact Dowell Health Center.

Mandatory Insurance Policy for International Students

All international students on F and J visa status are required to have health insurance that meets the university's minimum standards. These students are automatically enrolled in the university-sponsored insurance plan and the cost is billed to their tuition account. Students with their own comparable insurance may submit a waiver application, along with their plan benefits in English and proof of payment. If the waiver is approved, the insurance charge will be refunded. NOTE: Waiver deadlines are September 15 (fall term) and February 15 (spring term). Waiver applications submitted after the deadline will not be considered and refunds of insurance premium will not be given. Waiver applications must be resubmitted every fall term. See the Health Center Web site for waiver standards and application forms.

Graduate Student Association

7800 York Road, Second Floor
410-704-3967
Fax: 410-704-4494
gsa@towson.edu

The Graduate Student Association (GSA) upholds the mission of academic excellence at Towson University and provides a vehicle for graduate students to express their needs, concerns and ideas. The GSA provides grants twice a year (spring and fall) to help defray costs for graduate students who wish to pursue research, attend a conference or give a presentation. Graduate students are encouraged to apply for these grants. The GSA represents graduate student views on various

university-wide committees, and distributes a newsletter that addresses various topics specific to the graduate student. Graduate student fees fund the GSA, therefore all graduate students automatically become members of the GSA, and active participation is encouraged. Visit the GSA Web site at www.towson.edu/ghsa for the list of social events and meetings.

Housing and Residence Life

Newell Hall, Side Entrance

410-704-2516

www.towson.edu/housing

Graduate students may live in university residence halls or apartments if space is available. Space is extremely limited due to high demand of undergraduate students, who have first priority.

An Off-Campus Housing bulletin board in the University Union is available for use by students seeking housing, landlords who have housing to offer, or renters looking for ?roommates. Apartment guides and a list of ?rooms for rent in private homes can be obtained from Housing and Residence ?Life, Newell Hall Side Entrance and at www.towson.edu/housing/offcampus. Another re-source is The Baltimore Sun Apartment Search office, a local business providing free locator search information to renters on more than 1,300 apartments in Towson and 90,000 apartments in the Baltimore area. You can reach Apartment Search at 800-874-0788 or locally at 410-292-1980.

Millennium Hall

443-275-4050 (office)

443-275-4001 (fax)

capstone@towson.edu

www.millenniumhall.com

Millennium Hall is a five-story apartment complex offering upper-class and graduate student housing in four single-bedroom, two-bathroom apartments. Managed by Capstone Properties, the building is a privately owned, on-campus apartment complex. Residential education is managed by the Office of Housing and Residence Life. Each four-bedroom

apartment accommodates four students and is fully furnished with a living/ dining room and full kitchen. All-inclusive rent package includes 95 cable (and 8 HBO) channels, high-speed Internet connectivity, local phone, gas and electricity. The building is air-conditioned and has a laundry room on the first floor. Leases offered are 10 months for the academic year, as well as short-term summer leases. A 36-camera system and swipe card access makes Millennium Hall one of TU's safest on-campus housing options.

International Student and Scholar Office

Administration Building 246

410-704-2421

isso@towson.edu

www.towson.edu/isso

The International Student and Scholar Office (ISSO) provides services and programs for over 900 international students and international scholars/faculty from about 100 nations. Approximately 75 percent of international students are here for two to five years, working on undergraduate or graduate degrees. The ISSO provides the following programs and services:

- Documents and legal expertise which make possible the enrollment of nonimmigrant students
- Advising services necessary for those international students to maintain legal status while in the United States and to understand applicable federal government regulations and university policies
- Design and presentation of programs to assist international students in their transition to life in the United States and to provide them with tools for success in the American academic environment
- Advising for students regarding personal, academic, legal, career, intercultural communication and cross-cultural adjustment issues
- Serving as liaison to and advocate for students with government agencies and university offices
- Coordination of programs and ongoing services aimed at enhancing international

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students social lives here, encouraging their interaction with American students and community members, and promoting ways that they can become involved and appreciated for their unique cultural perspectives

- Coordination of appropriate services for international students in legal, medical and family emergency situations

Most of the staff is available Monday–Friday, 8:30 a.m.–5:30 p.m. Some scheduled in-person and phone appointments are available after 5 p.m. to students with urgent needs. Any student who has an emergency outside of normal business hours may contact the University Police at 410-704-2133. The police may assist or may contact an ISSO staff member at home.

New Student Assistance

At the beginning of each term, the ISSO holds orientation programs designed to assist students in their initial adjustment to a new culture. The International Ambassador Program recruits experienced international and U.S. students to serve as peer mentors during ISSO orientation week events.

Ongoing Services and Publications

Throughout the international student's stay at Towson University, the ISSO provides ongoing advising, services and programs. The ISSO assists students through individual appointments, walk-in meetings, group advising sessions, workshops and informational hand-outs. A career preparation workshop, Visas After Graduation, is presented nearly every term. It provides up-to-date information on non-immigrant and immigrant visa options for working in the United States. The office publishes ISSO News, a quarterly newsletter, and maintains an e-mail distribution list for all international students. These means are used to communicate pertinent immigration information, recreational offerings, job and travel opportunities, ISSO events and services, and other news for or about the international population on campus.

Social and Cultural Program Offerings

The ISSO also offers day trips during spring break and offers a variety of activities and programs in conjunction with the International Student Association (ISA). The ISSO and ISA cooperate each year to produce the International Festival—an evening of international food, fashion, song, dance and other performances which always draws a large crowd of U.S. and international students as well as members of the faculty and community.

Summary of Special Immigration Regulations for Students in F-1 Visa Status

Please note that the ISSO can provide the necessary immigration-related information and assistance to students, but it is the student, not the university, who is ultimately responsible for maintaining legal F-1 student status. F-1 students should contact an ISSO adviser if they have difficulty meeting any of these requirements before they have a problem. The ISSO is here to assist students in reviewing options and making wise decisions. The ISSO staff does not work for the Department of Homeland Security or the federal government, but are employees of the university who want international students to be successful.

- Report any change of local or foreign address to the U.S. government's SEVIS (electronic information system) by reporting it to the university through Online Services within 10 days of any move.
- Enroll at the school which issued the active SEVIS record Form I-20.
- Attend a full course of study (generally 9 units) each fall and spring term. See the section "Full-Time and Part-Time Status" in the Procedures and Policies chapter of this catalog for complete information about exceptions to the 9 units per semester normal load. Also note:
 - Students must both register for and attend class for the entire term.
 - A W (withdrawal) for a course means that course cannot count toward the full course of study.
 - Receiving a grade of FX means that the student never attended class, or stopped attending during the term without offi-

cially withdrawing, so an FX grade cannot count toward the full course of study.

- Units taken on an Audit basis do not count toward the full course of study.
- Under extremely limited circumstances, an international student may obtain an exception to the Full Course of Study requirement. Any possible exception must be discussed and approved in advance by a Designated School Official (DSO), per federal Immigration regulations. Towson's DSOs are the international student advisers at the ISSO.
- Make satisfactory academic progress.
- Complete the degree or program by the date in line 5 of the Form I-20. If a student is not able to complete the program by that date due to valid academic or medical reasons, s/he must apply at the ISSO for an F-1 program extension before the I-20 expires.
- For a transfer to another academic institution, special immigration status transfer regulations must be followed.
- Have an unexpired passport at all times, with a validity date at least six months into the future.
- Limit employment to a total (all jobs) of 20 hours per week while school is in session. F-1 students are allowed to work full-time in authorized employment at times when school is not in session, i.e., during the summer, Minimester and spring breaks.
- Receive written authorization for any and all off-campus employment, via the ISSO.
- Complete special U.S. tax forms and submit to the U.S. Internal Revenue Service even if no U.S. income was received.
- When nearing the end of the degree or program, these are the only options:
 - (a) obtain a new Form I-20 for a new institution or program within 60 days of completion of the current program, and attend the new school/program's next available term within 5 months of the current program completion date
 - (b) apply to change to another immigration status within 60 days of completion of the degree or program
 - (c) apply for optional practical training

work permission prior to completion of the degree, if eligible

- (d) depart from the U.S. within 60 days after completing the degree or program.

If the degree or academic program is not completed, the student must consult with an ISSO adviser and depart the U.S. within 15 days.

Jewish Cultural Center

Newell Dining Hall

410-704-4671

hillel@towson.edu

The Jewish Student Center offers a full range of social, educational, religious and cultural programs, including a Kosher dining program. The center is run by Towson Hillel, which is in association with Hillel of Greater Baltimore. The center has comfortable furniture, work tables for students groups and an eating and socializing area. Open to all Towson students, programs include weekly Shabbat dinners and social gatherings as well as discussions and lectures. The center is available for other student groups if reservations are made in advance. Students who participate in the Kosher meal plan option at Newell Dining Hall are welcome to eat in the center.

Office of Student Activities

University Union 217

410-704-3307

www.towson.edu/studentactivities

Office Hours:

Monday–Thursday, 8:30 a.m.–6 p.m.

Friday, 8:30 a.m.–5 p.m.

The Office of Student Activities complements the mission of the university by creating involvement opportunities and environments that motivate and inspire students to become active members of the campus community. Working in collaboration with faculty and staff, Student Activities staff offers a wide array of educational, cultural, social and recreational programming that fosters student learning and development. Areas of responsibility for the office include: leadership

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development, fraternity/sorority affairs, campus programming, service and volunteerism and student organization assistance.

Center for Student Diversity

University Union 313

410-704-2051

Office Hours:

Monday–Friday, 8:30 a.m.–5 p.m.

www.towson.edu/diversity

Towson University is committed to developing an environment conducive to the success of multicultural students. The Center for Student Diversity provides a variety of programs, including the Graduate Diversity Grant and services that offer financial assistance to qualified graduate students. The center also provides information about university services, scholarships, social opportunities and internships.

Office of Technology Services

Albert S. Cook Library,

First Floor Help Center, Room 5

410-704-5151

www.towson.edu/ots

Office Hours:

Monday–Thursday, 8 a.m.–7 p.m.

Friday, 8 a.m.–5 p.m.

Saturday, 10 a.m.–6 p.m.

Sunday, Noon–8 p.m.

The Help Center is located in room 5 on the first floor of Cook Library. Graduate students may establish a computer account to access e-mail, news and Internet resources and to create Web pages. For more information about the university's technology resources, visit www.towson.edu/ots.

Parking and Transportation

University Union Garage

410-704-PARK

<http://parking.towson.edu>

All motor vehicles, except those parked at parking meters, are required to display a valid parking permit when parked on campus from 6 a.m. – 8 p.m., Monday–Thursday, and 6 a.m. – 3 p.m. on Fridays. Vehicles in violation

of this regulation will be ticketed. Both resident and commuter students may apply to purchase a parking permit.

Commuter students have the option of purchasing a permit to park on campus at all times or only in evenings after 3 p.m. Students purchasing a parking permit must park in those areas designated by their specific permit type and time restrictions. For information regarding permit rates and purchasing options, please visit our Web site.

Visitors to campus are required to purchase a one-day Visitors' Parking Permit from a pay station at a designated visitor location. Those visitors participating in official Admissions Office tours are excluded from this requirement, but must display the permit distributed by admissions staff.

The university provides on-campus shuttles to transport students, faculty, staff and visitors to various locations throughout campus. Shuttles operate on a regular schedule from 7:30 a.m. to 10 p.m., Monday through Friday and 2 p.m. to 10 p.m. on Saturdays and Sundays. Also available are shuttles to Kenilworth at Charles (Monday–Friday) and University Village (Monday–Thursday) apartment complexes. The university shuttles only operate during the regular academic terms, when the campus is open. There is no fee to ride any shuttle. For more information and to view the schedules, please visit our web site.

Student Day Care Center

University Child Care

410-704-2652

childcare@towson.edu

www.towson.edu/daycare

The Student Day Care Center provides child-care for children, ages 2 through 5. First priority is given to the children of university students. The center is open from 7:30 a.m. – 5:30 p.m. whenever classes are in session. Interested parents should phone or e-mail to obtain an application and information. Admittance is arranged by order of arrival on the waiting list.

Students With Children is an SGA-affiliated organization supported by the center, which

also addresses student parents whose children are not currently enrolled in the center. Such students and their families are invited to events, lectures and outings. Interested student parents are encouraged to e-mail the center at studentswithchildren@towson.edu to become part of a list of students who will be notified of upcoming events.

Part-Time Employment Opportunities

The Career Center at Towson University
7800 York Road, Suite 206
410-704-2233

Graduate students can explore both on- and off-campus job opportunities using the resources provided by the Career Center at Towson University. On-campus jobs (federal work study and regular student employment) are posted on The Career Center's Web site, Hire@TU, along with off-campus job listings from a wide range of local companies. Each fall and spring term, the Career Center hosts job fairs for part-time and summer opportunities. Most employers who hire college/graduate students offer flexible work hours to accommodate student schedules.

To learn more about services offered through the Career Center, visit www.towson.edu/careercenter or call 410-704-2233.

TU Identification Card (OneCard)

<http://onecard.towson.edu>

The OneCard is your key to accessing services and facilities all over campus. This card gives you access to the library, Dining Points and Retail/Vending Points, debit accounts and your meal plan. It identifies you to university officials as a Towson student with a valid reason to be on campus using university facilities and provides free admission to most athletic events.

To obtain your OneCard, visit the Auxiliary Services Business Office, University Union 110. Bring your driver's license or another form of valid, official photo identification. Your OneCard is also your library card.

There are two debit accounts available with your OneCard:

- Dining Points accounts may be used to buy food from any on-campus dining hall or retail location. You receive a 6 percent discount by using your Dining Points account instead of cash.
- Retail/Vending Points accounts may be used for purchases at select vending machines (candy and soda machines), all washers and dryers, the University Store (textbooks, supplies and convenience-store items), Dowell Health Center, Auxiliary Services Business Office and some off campus locations.

There are no service charges to operate either account. Deposits can be made by mail, phone, in person or through the Web site, <http://onecard.towson.edu>. Financial aid can be deposited to your OneCard accounts at the Bursar's Office for faster access to your textbook funds.

To open a OneCard account, complete an application form, available from:

Auxiliary Services Business Office
University Union 110
Towson University
8000 York Road
Towson, MD 21252-0001
410-704-2284

University Store

University Union, first floor
410-704-BOOK (2665)
<http://store.towson.edu>

Regular hours for spring and fall terms:

Monday–Thursday 8:30 a.m.–7 p.m.
Friday 8:30 a.m.–4 p.m.
Saturday 11 a.m.–3 p.m.
Hours are extended during the first week of classes and move-in weekend. Summer and January hours vary; please call or visit <http://store.towson.edu>.

The Towson University Store staff takes pride in satisfying the diverse needs of the campus community by offering a variety of goods and services. Distinctive merchandise, which promotes school spirit and recognition, consists of quality TU emblematic adult and children's clothing, stationery, giftware and

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the official Towson University class ring. Since the University Store is owned and operated by Towson University, all profits generated from the sale of merchandise are reinvested into the university. No student fees are used to support the University Store.

You can purchase:

- Required and recommended textbooks and supplies
- Basic school, art and computer supplies
- Quality emblematic gifts and clothing
- Academically priced software (student ID required)
- General gifts
- Wide selection of greeting cards
- Snacks and beverages
- Competitively priced CDs and DVDs
- Packing supplies
- Reference materials
- Fiction and non-fiction
- Magazines
- Fax and copy service
- Used Book Buyback
- Graduation regalia, announcements and diploma frames

Visit <http://store.towson.edu> to order merchandise, request a store catalog, and obtain information about textbooks, graduation, location, store hours, refund policy and Used Book Buyback.

The University Store accepts cash, personal checks with proper ID, OneCard Retail/Vending Points, Visa, MasterCard and Discover.

University Union

Information Desk

410-704-4636

(Building hours vary)

As the social hub of the campus, the University Union hosts a wide variety of activities and events throughout the day and evening. Services located in the Union include the University Store, source of textbooks, course supplies, Towson University apparel and gifts, and a variety of packaged foods and beverages; a Ticketmaster outlet; Paws, a cyber cafe with extensive recreation areas and activities; the

offices of Auxiliary Services, which handles financial transactions for campus parking, the dining halls and numerous other services at the university; two automatic teller machines (ATMs); a full-service bank; a full-service U.S. Post Office; several dining facilities; a gourmet coffee and dessert bar; meeting rooms; and a large lounge. The offices of the Campus Activities Board (CAB), which presents a wide variety of programs for the campus at large; The Towerlight, the student newspaper; and many other organizations also are housed in the University Union.

Women's Center

University Union 313

410-704-2051

f. 410-704-4229

Office Hours:

Monday–Friday, 8:30 a.m.–5 p.m.

The Towson University Women's Center has been in continuous operation since 1972. It is located in University Union, room 313. The Women's Center offers a range of services, programs and events related to women's issues. The safety and well-being of women and all students is of paramount importance in every initiative of the center. A library and lounging area in the Women's Center is available for use throughout the week. The space also accommodates small group meetings. Support groups meet during the evenings in the center.

Course Descriptions

Descriptions of 500-800-level courses are listed in this section. Consult the course schedules to determine the courses offered in a particular session. Consecutively numbered courses, when separated by a hyphen, are to be taken in sequence.

ACCOUNTING (ACCT)

Courses denoted by an asterisk are currently offered at the UB campus only.

ACCT 504 INTRODUCTION TO ACCOUNTING (3) Provides a basic understanding of the underlying postulates, principles and assumptions of accounting. Includes a review of GAAP, external reporting and of the bases for managerial accounting.

***ACCT 601 FORENSIC ACCOUNTING PRINCIPLES (3)** Provides students with an overview of the field of forensic accounting focusing on the roles, responsibilities and requirements of a forensic accountant in both litigation and fraud engagements. This course examines basic litigation and fraud examination theory, identifies financial fraud schemes, explores the legal framework for damages and fraud and damage assessments and methodologies, and reviews earning management and financial reporting fraud. Other topics include computer forensics and corporate governance and ethics. Actual litigation and fraud cases are used to highlight the evolving roles of forensic accounting.

***ACCT 602 DISSECTING FINANCIAL STATEMENTS (3)** Students will learn how to review, detect, and investigate possible financial statement concerns of publicly and privately held businesses, as well as nonprofit organizations and family businesses. Topics covered include: legal elements of financial statement fraud, management's and auditor's responsibilities, improper revenue/sales recognition, inadequate disclosure of related-party transactions, improper asset valuation, improper deferral of costs and expenses, financial statement red flags, and inadequacies in

management's discussion and analysis. Students will learn how to detect and investigate possible financial statement problems by addressing such factors as off balance sheet activity, liquidity, financial performance indicators, unreported intangibles, and lease auditing.

***ACCT 603 INVESTIGATIVE ACCOUNTING AND FRAUD EXAMINATION (3)** Topics include the in-depth review of sophisticated fraud scheme, how fraudulent conduct can be deterred, how allegations of fraud should be investigated and resolved, the recovery of assets, methods of writing effective reports, and complying with SAS 82 and other fraud standards. Fraud and investigation topics cover acts of skimming, cash larceny, check tampering, register disbursement schemes, billing schemes, payroll and expense reimbursement schemes, improper accounting of inventory and other assets, corruption, bribery, conflicts of interest, security fraud, insurance fraud, anti-terrorist financing, and money laundering.

***ACCT 604 LITIGATION SUPPORT (3)** Addresses the relationship between the forensic accounting professional and the litigation process in which they may play a role. Specifically, this course will cover the litigation process, the legal framework for damages and fraud, damage assessment methodologies, issues related to the presentation of evidence through expert testimony, practices used in supporting divorce cases, and basic rules of evidence as they apply to forensic accountants.

ACCT 630 CONTEMPORARY ISSUES IN FINANCIAL REPORTING (3) Theoretical and conceptual foundations of generally

accepted accounting principles and practices as well as certain other principles and practices not generally accepted. Recent and current literature is studied to provide coverage of the basic postulates, assumptions and standards underlying the measurement criteria and practices of financial accounting. Prerequisite: Undergraduate degree in accounting and/or admission to the M.S. in Accounting and Business Advisory Services Program.

ACCT 640 ACCOUNTING FOR MANAGERIAL DECISIONS (3) How managers use cost information and accounting control systems for decision-making. The use of standard costing, activity-based systems and budgeting are among the techniques that are discussed in the course. Prerequisite: ACCT 504 or equivalent.

***ACCT 655 TAX POLICY (3)** The evolution and structure of the federal income-tax system from a public policy perspective. Focus is placed on legal, economic, social and practical considerations. Alternatives, including current legislative proposals, are considered. Students prepare a research paper on a topic related to tax policy.

ACCT 680 TAXATION OF ENTITIES (3) Federal income taxation of corporations, partnerships, estates and trusts, and the taxation of gifts and estates. Analysis includes consideration of the sources of tax law, weight or authority, ethical issues, planning and administrative procedures. Prerequisite: Undergraduate degree in accounting and/or admission to the M.S. in Accounting and Business Advisory Services Program.

ACCT 695 INDEPENDENT RESEARCH IN ACCOUNTING (3) Individual and supervised research in selected areas of accounting. Special permit required. May be repeated for a maximum of 6 units. Prerequisite: Entry into the Accounting and Business Advisory Services Program and consent of instructor.

ACCT 697 GRADUATE ACCOUNTING INTERNSHIP (3) Students work on assigned projects within an actual accounting environment. Grade requirements include a work supervisor evaluation, research paper and journal detailing the work experience. Prerequisites: Admission to the M.S. in Accounting and Business Advisory Services Program and permission of the graduate director of the accounting program.

ACCT 720 DESIGN OF MANAGERIAL COST AND CONTROL SYSTEMS (3) The design of cost and control systems for decision making and for measurement of the performance of processes, product lines, managers and organizational competitiveness. Case studies highlight the experiences of companies and include modifying cost and control systems in response to technological, institutional and global changes. Prerequisite: Undergraduate degree in accounting and/or admission to the M.S. in Accounting and Business Advisory Services Program.

ACCT 740 ADVANCED TOPICS IN ASSURANCE SERVICES (3) A study of the application of generally accepted auditing standards to auditing practice issues of academic and practitioner research, internal auditing, EDP auditing and governmental auditing issues. Prerequisite: Undergraduate degree in accounting and/or admission to the M.S. in Accounting and Business Advisory Services Program.

ACCT 750 FORENSIC ACCOUNTING (3) Forensic accounting is an interdisciplinary study of social learning/process theories, accounting, law, the systems of internal controls, evidence gathering, interpersonal skills, communication skills and information technology skills. This course provides foundation knowledge about fraud prevention, detection and investigation for an accountant. Prerequisite: ACCT 740 or consent of instructor.

ACCT 752 ADVANCED TOPICS IN ACCOUNTING SYSTEMS (3) An exploration of advanced accounting information system topics such as ERP, systems, e-business

applications, AIG implementation, security, etc. Prerequisites: ACCT 300.

ACCT 755 GOVERNMENTAL AND NOT-FOR-PROFIT ACCOUNTING (3) Advanced study of generally accepted accounting principles and procedures of governmental units and not-for-profit organizations, emphasizing current issues, external financial reporting and the relevant authoritative accounting pronouncements. Topics include: characteristics and types of not-for-profit organizations, accounting and reporting entity, fund accounting, budgetary accounts, contributions received and made, investments and the encumbrance system. Prerequisite: Undergraduate degree in accounting and/or admission to the M.S. in Accounting and Business Advisory Services Program.

***ACCT 761 ACCOUNTING FOR HEALTH CARE ORGANIZATIONS (3)** Financial reporting, analysis and strategy principles applied to for-profit and not-for-profit health care organizations. Financial and managerial accounting issues related to strategic decision-making are emphasized. Includes review of the authoritative health care accounting literature, overview of the health care accounting environment, issues in revenue and expense recognition, balance sheet valuations, budgetary control systems, cost accounting, performance measurement and financial implications of third-party payment systems and managed-care arrangements. Prerequisite: ACCT 504 or equivalent.

***ACCT 762 ACCOUNTING FOR MEDICARE REGULATION (3)** Principles and applications of Medicare payment systems and rate regulation for health care providers, emphasizing understanding the Medicare system, developing the technical skills required to identify and research problems in Medicare payments, isolating relevant regulatory issues and developing documentary support and arguments for proposed solutions to problems in health-care payment claims. Topics include Medicare and the U.S. health care system, Part A hospital insurance benefits, Part B supplementary medical insurance benefits, exclusions

from coverage, fraud and abuse, physician self-referral, payment rules, cost reports, claims and appeals and managed care plans. Prerequisite: ACCT 504 or equivalent.

ACCT 770 SEMINAR IN CURRENT TOPICS IN ACCOUNTING (3) A study of current developments and contemporary problems in accounting. Topics vary from year to year. A significant writing and research experience is provided. Prerequisite: Undergraduate degree in accounting and/or admission to the M.S. in Accounting and Business Advisory Services Program.

ACCT 780 SUSTAINABILITY ACCOUNTING (3) Sustainability accounting concerns the process of identifying, measuring and reporting the entities' impact on the planet with a focus mainly on the environmental impact. Determining how different entities affect the environment, measuring that impact and deciding what, how and who to report this impact to, are all part of the course. The course will cover topics dealing with greenhouse gas emission, trading and sustainability investing. Prerequisites: ACCT 640 or equivalent.

ACCT 797 SPECIAL TOPICS IN ACCOUNTING (3) Specialized topics in accounting, allowing flexibility for both the changing developments in accounting and the educational needs of students. Exact topics and prerequisite structure appear in the schedule of classes. Prerequisite: ACCT 640 or area approval.

ACCT 799 INDIVIDUAL RESEARCH (1-3) Prerequisite: approvals of accounting instructor and chair of accounting department.

ADULT EDUCATION (ADED)

ADED 585 ADULT EDUCATION (3) Introduction to the historical and philosophical evolution of adult education in the United States in relationship to current aims, types of programs and issues. Prerequisite: Consent of instructor.

ADED 587 TEACHING THE ADULT LEARNER (3) Teaching-learning activities at various levels of adult education. The needs, motivation and abilities of the adult learner are stressed. Prerequisite: Consent of instructor.

AFRICAN AMERICAN STUDIES (AFST)

AFTS 511 TOPICS IN AFRICAN AMERICAN STUDIES (3) Extensive study of a specific topic chosen from a variety of disciplines in African American Studies. Content varies. May be repeated for a maximum of 6 units when identified by a different subtitle. Prerequisites: AFST 201 and a 300-level course fulfilling the African and African American Studies minor or consent of the program director and the instructor.

ALLIED HEALTH (AHLT)

AHLT 513 CLINICAL PROGRAM PLAN & EVALUATION (3) This course is an overview of the clinical program planning and evaluation process. Focus is given to the development of clinical health programs based on community/medical needs or needs of healthcare systems. Prerequisite: Admission to the Allied Healthy program or permission of instructor.

AHLT 545 RESEARCH METHODS IN ALLIED HEALTH (3) This course covers basic concepts for understanding and conduction research related to Allied Health professions. Focus is given to the study of experiemental and quasi-experimental designs, quanitative and qualitative methodologies, literature search and critique, basic statistical procedures for data analysis, and research ethics. Prerequisites: None

AHLT 570-579 SPECIAL TOPICS IN ALLIED HEALTH (1-3) Topics in Allied Health as approved by the Allied Health department. Prerequisite: None. These courses maybe repeated for a maximum of three credits.

ANTHROPOLOGY (ANTH)

ANTH 501 ANTHROPOLOGICAL THEORY (3) Survey of the theoretical contribution made by American, British and Continental anthropologists. Prerequisites: ANTH 207 plus 9 units of anthropology.

ANTH 521 GENDER IN CROSS-CULTURAL PERSPECTIVE (3) Materials from a variety of cultures will be used to illustrate and analyze the roles of women and men within the major institutional aspects—the family, economics, politics and religion. Particular attention will be devoted to the similarities and differences in sex-role patterns within and among the cultures. Prerequisite: SOCI 101 or ANTH 207.

ANTH 325/525 MORAL PANICS (3) Anthropological theories and methods used to analyze moral panics; role of the global media in the culture of fear. Prerequisite: ANTH 207

ANTH 530-539 TOPICS IN ANTHROPOLOGY (3) Examination of current topics in anthropology, designed for non-majors as well as majors. May be repeated for credit provided a different topic is covered. Prerequisite: ANTH 207.

ANTH 546 WEALTH, POWER AND POLITICS IN CROSS-CULTURAL PERSPECTIVE (3) Political systems and the distribution of power in egalitarian, ranked and stratified societies will be examined. Prerequisite: SOCI 101 or ANTH 207.

ANTH 553 LATINAS IN THE AMERICAS (3) Anthropological perspective stressing “emic” or insider view, structural constraints of class, gender and race; women’s agency is used to understand the diverse experiences of Latin American women with colonization, independence, revolution, development and structural re-adjustment. Prerequisite: ANTH 207 or 208 or WMST 231 or consent of instructor.

ANTH 564 RELIGION, MAGIC AND WITCHCRAFT (3) The world view, beliefs and rituals of selected nonliterate peoples considered with reference to religion as a universal category of human culture. Prerequisite: ANTH 207.

ANTH 565 NORTH AMERICAN INDIANS (3) The traditional culture of native North Americans and their sociocultural place in modern American society. Prerequisite: ANTH 207.

ANTH 566 SOUTH AMERICAN INDIANS (3) Survey of the cultures of the native peoples of South America in pre-Columbian times and the situation of contemporary tribal peoples of South America. Prerequisite: ANTH 207.

ANTH 567 PEOPLES OF THE MIDDLE EAST (3) Survey of the Middle East as a cultural area with emphasis on culture change. Prerequisite: ANTH 207.

ANTH 568 GLOBALIZATION IN CROSS-CULTURAL PERSPECTIVE (3) Analyzes various approaches to globalization and examines the consequences of globalization and development among selected contemporary populations, primarily southern countries of the world. Prerequisites: ANTH 207 and SOCI 101.

ANTH 569 TRADITION AND REVOLUTION IN LATIN AMERICAN SOCIETY (3) An anthropological perspective will be brought to bear on contemporary Latin American culture and society. The pre-Columbian heritage, the traditional synthesis and the struggle to modernize and develop will be examined. Prerequisite: SOCI 101, ANTH 207 or ANTH 208.

ANTH 570-579 SPECIAL TOPICS IN ANTHROPOLOGY (1-3) Examination of current topics in anthropology at the most specialized level. May be repeated for credit provided a different topic is covered. Prerequisites: ANTH 207 and 6 additional units of anthropology.

ANTH 581 ARCHAEOLOGICAL METHODS AND THEORY (3) Methods of excavating and recording archaeological data. Investigation of problems of current research interest. Prerequisite: ANTH 207.

ANTH 582 VISUAL ANTHROPOLOGY (3) The Study of ethnographic media and representation of various cultures globally; theories and methods related to the production of various forms of visual anthropology. Prerequisites ANTH 207

ANTH 587 NATIVE AMERICAN ARCHAEOASTRONOMY (3) Prehistoric roots of astronomy in the New World, with an emphasis on the American Southwest. Celestial motions and the development of a calendar, related folklore and case studies concerning solstice and equinox observations. Prerequisite: ANTH 207 or 208.

ANTH 588 PEASANT CULTURES (3) Focus on rural agricultural population of modern states, their traditional lifeways and the changes being wrought by modernization. Prerequisite: SOCI 101 or ANTH 207.

ANTH 591-592 INTERNSHIP IN ANTHROPOLOGY I, II (3, 3) Supervised experience in work setting which facilitates understanding of rules and relationships relevant to anthropological inquiry and application of anthropological knowledge. While opportunities to do anthropologically oriented fieldwork in the community will usually be available, placement in agencies dedicated to anthropological inquiry may not always be possible. Students may elect to take one term for 3 units (591) or two terms for 3 units each (591-592), in one agency for both terms or in a different agency each term. No more than 3 units may be earned in a term, without consent of the chair, which will be granted only when agency requirements and student needs make it appropriate. Prerequisite: Consent of internship coordinator.

ANTH 595 INDEPENDENT RESEARCH (3) Supervised research and anthropological

investigation leading to preparation of a research project or a supervised field experience. Prerequisites: At least 12 units in ANTH and consent of department chair.

APPLIED INFORMATION TECHNOLOGY (AIT)

AIT 500 FUNDAMENTALS OF COMPUTER PROGRAMMING AND DATA STRUCTURES (6) Structured problem solving, algorithm development, fundamentals of computer programming, basic data structures and their implementation, sort and search algorithms, and an introduction to the design and development of information systems. Prerequisite: Admission to AIT program.

AIT 501 INFORMATION TECHNOLOGY FUNDAMENTALS (4) Overview of IT concepts; ethical, social and security issues related to IT systems; business information systems; electronic commerce; enterprise resource planning systems; decisions support systems; IT systems development overview; effective use of up-to-date IT tools and application software. The course consists of two hours of lecture and three hours lab work per week. This course will not count as graduate credit toward AIT program or any other graduate program offered at TU. Prerequisite: Admission to AIT program.

AIT 600 INFORMATION TECHNOLOGY INFRASTRUCTURE (3) A discussion of information systems architectures including software systems, hardware, operating systems, data bases, object-oriented technology, networking and enterprise-wide systems. Prerequisite: Admission to AIT program.

AIT 610 SYSTEMS DEVELOPMENT PROCESS (3) Structured and object-oriented analysis, design and implementation of information systems; distributed information systems; information systems life cycle models, platforms and security. Discussions of requirements definition, modeling quality assurance and development environments. Prerequisite:

AIT 600. May take concurrently with AIT 600.

AIT 612 INFORMATION SYSTEMS VULNERABILITY AND RISK ANALYSIS (3) The identification of vulnerabilities and risks inherent in the operation of information systems will be explored. Countermeasures will be discussed and documented in an effort to counter identified vulnerabilities. Prerequisite: AIT 610. May take concurrently with AIT 610.

AIT 614 NETWORK SECURITY (3) Network security, hacker attacks, Web security, e-mail security, e-commerce security, systems and operation environment security, database security, algorithms for making data communications secure, encryption and coding techniques and IP security. Prerequisite: AIT 612.

AIT 616 FUNDAMENTALS OF WEB TECHNOLOGIES AND DEVELOPMENT (3) Introduction to HTTP protocol, dynamic HTML and common gateway interface (CGI) programming. Study and practice of object-oriented programming concept using Java. Design and implementation of application software including graphical user interfaces (GUIs), concurrent and distributed programming, distributed information systems server architectures, database connectivity and the enterprise packages provided by the Java programming language. Prerequisite: AIT 610. May take concurrently with AIT 610.

AIT 618 CLIENT/SERVER-SIDE PROGRAMMING ON THE WEB (3) Discussion of HTTP protocol, dynamic HTML, common gateway interface (CGI) programming, Java applets and server-side programming. Development of information systems incorporating applications executing on a client-server system. Design and implementation of distributed information systems involving the technologies developed for the Web. Prerequisite: AIT 616.

AIT 620 BUSINESS DATA COMMUNICATIONS (3) Business data communications, distributed data processing, fundamental data

transmission, network types, distributed applications, client/server architecture, network management and security, and Internet /intranet, extranet. Prerequisite: AIT 610. May take concurrently with AIT 610.

AIT 622 NETWORKS ARCHITECTURE AND PROTOCOLS (3) Review of fundamentals of network technology, Internet protocols, multicasting, subnet and supernet addressing, routing algorithms, client-server, socket interface, bootstrap and auto configuration, file transfer, e-mail, and Internet security. Prerequisite: AIT 620.

AIT 624 SOFTWARE ENGINEERING FUNDAMENTALS (3) Application of formal software engineering principles and practices to the development of information systems, application software and embedded, computer-based systems. A comprehensive description of the software engineering process will be presented along with a discussion of the approaches, methodologies and tools available to the practicing software engineer. Prerequisite: AIT 610. May take concurrently with AIT 610.

AIT 626 ADVANCED TOPICS IN SOFTWARE ENGINEERING (3) Formal processes leading to developing information system design requirements and specifications; quantitative measures of software attributes including: software cost and schedule estimation, human factors, test and integration, reliability, real-time software, quality assurance and their contributions to a successful software development cycle. Prerequisite: AIT 624.

AIT 628 INFORMATION TECHNOLOGY AND BUSINESS STRATEGY (3) Design and evolution of technology strategy; the development of the firm's innovative capabilities and implementing a development strategy; changes in business strategies due to the emergence of the Internet and e-business; new business models that have emerged, the components of such models, the dynamics and appraisal of the models, and the new value configurations. Prerequisite: AIT 610. May take concurrently with AIT 610.

AIT 630 INFORMATION TECHNOLOGY PROJECT MANAGEMENT (3) Tools and techniques for the successful management of information technology projects. Topics include project selection and approval, planning, estimation techniques, scheduling methods, budgeting, IT project organizations, and project control and assessment. Prerequisite: AIT 628.

AIT 632 DATABASE MANAGEMENT SYSTEMS (3) Study of database management system fundamentals, data models, design, implementation and processing. Most popular database management systems such as Oracle, SQL Server and Access are used throughout the course to illustrate design and implementation of real-world database applications and processing. Prerequisite: AIT 610. May take concurrently with AIT 610.

AIT 650 COMPUTER AND NETWORKS FORENSICS AND INCIDENT RESPONSE (3) Traditional computer forensic analysis and network forensics are rapidly converging disciplines. And depending on one's objectives, incident response can be an active, real-time forensic analysis. At the very least, the process of incident response will have a significant impact on any later forensic analysis, so knowledge of all of these discipline is important to the practitioner of any of the disciplines. This course is a core component of an information assurance curriculum. Prerequisites: AIT 600, AIT 610, AIT 614 and familiarity with Linux.

AIT 652 ETHICS, LAW AND POLICY IN CYBERSPACE (3) This is a course for technical managers and is designed to create an awareness of the ethical issues, legal resources and recourses, policy implications inherent in our evolving online society. The course provides an overview of the ethical challenges faced by individuals and organizations in the information age and introduces the complex and dynamic state of the law as it applies to behavior in cyberspace. It is intended to sensitize managers and professionals to the pitfalls and dangers of doing business in an interconnected world, and

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to familiarize the student with various organizations and materials that can be turned to for assistance in understanding how to ethically and legally operate and use modern computer systems and networks. Prerequisites: AIT 600, AIT 610 and AIT 612.

AIT 655 MANAGING INFORMATION SECURITY (3) This is an advanced study course in information assurance. The focus is on applying the various specific information assurance concepts, understandings, methods, processes and tools for the previous IA, telecommunication and IT course taken by the student to formulate the basis for sound business decisions. Prerequisites: AIT 600, AIT 610 and AIT 614.

AIT 670-679 SPECIAL TOPICS IN APPLIED INFORMATION TECHNOLOGY (3) Selected topics in applied information technology. Emphasis on new and emerging applications in information technology. Prerequisites: 6 units of graduate work in AIT and consent of instructor.

AIT 695 INDEPENDENT STUDY IN APPLIED INFORMATION TECHNOLOGY (3) Independent supervised study in selected areas of information technology and its application in a variety of fields. Prerequisites: 6 units of graduate work in AIT and consent of AIT graduate program director.

AIT 710 CASE STUDIES IN INFORMATION SECURITY (3) This course consists of a realworld project dealing with information security in distributed information systems including applications of theory and techniques in information security. Prerequisites: AIT 612, AIT 614 and consent of AIT graduate program director.

AIT 715 CASE STUDIES IN INTERNET APPLICATIONS (3) Real-world project dealing with the development of information systems for Internet applications; emphasis on distributed information systems for Web deployment. Prerequisites: AIT 616, AIT 618 and consent of AIT graduate program director.

AIT 720 CASE STUDIES IN NETWORKING TECHNOLOGY (3) Real-world projects dealing with the development, installation, and management of application systems or a variety of networks environment; emphasis is on distributed applications for LAN, WAN, Internet and intranet. Prerequisites: AIT 620, AIT 622 and consent of AIT graduate program director.

AIT 725 CASE STUDIES IN SOFTWARE ENGINEERING (3) Real-world project dealing with design and development of large-scale information systems including applications of theory and techniques in software engineering. Prerequisites: AIT 624 and AIT 626 and consent of AIT graduate program director.

AIT 730 CASE STUDIES IN INFORMATION SYSTEMS (3) Real-world projects dealing with issues related to development, management and maintenance of large-scaled information systems; emphasis is on business information systems for a distributed environment. Prerequisites: AIT 628, AIT 630 and consent of AIT graduate program director.

AIT 732 ADVANCED DATABASE MANAGEMENT SYSTEMS (3) This course emphasizes advanced topics in database management systems. Topics include: query pro transaction processing, concurrency and recovery techniques, advanced database models, object-oriented databases, relational databases and Web databases, distributed databases, data warehousing and OLAP. Prerequisite: AIT 632.

AIT 735 CASE STUDIES IN DATABASE MANAGEMENT SYSTEMS (3) Real-world projects dealing with issues related to development, management and maintenance of large-scaled information systems; emphasis is on the distributed database systems and related security issues. Prerequisites: AIT 632, AIT 732 and consent of AIT graduate program director.

AIT 880 GRADUATE PROJECT (3) Students conduct a study in an advanced IT related topic or undertake the analysis, design and implementation of real-world application. The

application may be related to an industrial project sponsored by a company or it may be a mutual interest to the student and the supervising faculty. Prerequisite: Completion of at least 18 units toward M.S. in AIT or COSC.

AIT 885 PROJECT CONTINUATION (1) Continuation of graduate project/case study courses. Prerequisite: Previous registration in graduate project/case studies.

AIT 895 DOCTORAL INDEPENDENT STUDY (3-6) Independent guided study for doctoral students to prepare for qualifying exams in preparation for dissertation work. May be repeated up to a total of 9 units. Registration by special permit as authorized by doctoral program director or chair of the department only. S/U grading.

AIT 997 DISSERTATION (3-9) Independent guided research leading to the dissertation. May be repeated up to a total of 24 units. Registration by special permit as authorized by doctoral program director or chair of the department only. S/U grading.

AIT 999 DISSERTATION CONTINUUM (1) Continuing work towards the completion of the dissertation. Registration by special permit as authorized by doctoral program or chair of the department only. S/U grading.

ART (ART)

ART 500 CERAMIC RAW MATERIALS (3) Lecture and laboratory investigation of ceramic materials as they apply to glazes, clay slips and clay bodies. Tests and problems in ceramic raw materials. Prerequisite: ART 309, ART 310 or equivalent.

ART 508 CERAMICS: SCULPTURE (3) Studio experience using a variety of ceramic techniques. Problems in sculptural directions for students' experiences in handbuilding and the potter's wheel. Prerequisite: ART 310 or consent of instructor.

ART 513 ENAMELING II (3) Continued studio experience in enameling with emphasis on advanced techniques of cloisonne and plique-a-jour. Independent work and personal expression are encouraged. Taught concurrently with ART 314. Prerequisite: ART 314.

ART 514/515/516 ADVANCED STUDIO (2-3, 2-3, 2-3) Independent work for advanced students in field of special interest. Prerequisite: Must have exhausted other courses in particular field or obtained written consent of instructor. Student must make arrangements in advance of registration with instructor of choice.

ART 518 JEWELRY II (3) Intermediate design and studio experience. Directed problems in the techniques of metal construction, forging, stone setting and cold joinery. Prerequisite: ART 318.

ART 519 METALSMITHING (3) Lecture, demonstration and directed studio problems in raising, forging, joining and finishing various metals with emphasis on design and creation of hollowware and flatware. The historic and aesthetic aspects of the media are considered. Prerequisite: ART 318.

ART 521 GRAPHIC DESIGN II (3) Continued studio in drawing, painting and typography. Advanced assignments in preparing brochures and booklets for commercial printing. Prerequisite: ART 225 or consent of instructor.

ART 529 PAINTING IV (3) Continued studio experience for advanced students, with emphasis on personal direction. May be repeated for a maximum of 9 total units. Prerequisite: ART 336.

ART 530 WATERCOLOR II (3) Intermediate studio experience: landscape, still life, figures and photographic imagery. Prerequisites: ART 331 and Watercolor I.

ART 534 PHOTO IMAGING - CONCEPTS I (3) The aesthetic of black-and-white image making using advanced analog and electronic

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imaging techniques. Prerequisite: ART 236, ART 237, ART 238 and ART 259.

ART 535 PHOTO IMAGING - CONCEPTS II (3) The aesthetic of color image making using advanced analog, alternative/mixed media, and electronic imaging techniques. Prerequisite: ART 334.

ART 536 PHOTO IMAGING - PORTFOLIO (3) Portfolio Construction using advanced analog, alternative/mixed media, and electronic imaging technology. May be repeated for up to 9 units. Prerequisites: ART 334, ART 335, ART 421. May be taken concurrently with ART 421.

ART 543 COMPUTER MULTIMEDIA I (3) Exploration of multimedia and authoring techniques as related to interactivity on the computer, using still and animated image creation and manipulation. Prerequisite: ART 321 or ART 360.

ART 547 SCREEN PROCESS II (3) Advanced color projects, using direct photo emulsion, and emphasizing integration of hand-drawn image with photo and computer-generated images. Non-toxic water-based inks.

ART 549 RELIEF PROCESS II (3) Traditional and experimental processes. Advanced color assignments using oil and water-based inks.

ART 555 NEW DIRECTIONS IN PRINT-MAKING (3) Using technology to link print-making to digital, photo and Xerox images. Prerequisite: ART 217.

ART 557 GRAPHIC DESIGN III (3) Problems in graphic communication on the Macintosh computer, emphasizing individual portfolio development. Prerequisite: ART 417.

ART 573 ILLUSTRATION II (3) Continued studio experience in illustration and development of personal approaches in various media. Emphasis on practicing professional assignments and preparing portfolio. Prerequisite: ART 373 or equivalent.

ART 578 NEW DIRECTIONS IN PAINTING, EXPERIMENTAL MEDIA AND ART I (3) Continued studio experience: for advanced student with emphasis on personal direction. Prerequisite: Permission of instructor.

ART 594 TRAVEL AND STUDY ABROAD (3-6) Countries and topics to be selected by the department and instructors sponsoring the program. For information, contact the art department early in the term preceding the term of travel study. Prerequisite: Consent of instructor and interview.

ART 608 GRADUATE CERAMICS I (3) Advanced problems in selected ceramic areas. Repeatable for a maximum of 6 units with consent of program director and instructor.

ART 610 ELEMENTS OF WWW DESIGN (3) Production, techniques and research as related to digital imaging, electronic page layout and WWW design. Prerequisite: Acceptance to the Interactive Media Design Certificate Program or consent of the IAMD program director.

ART 611 GRADUATE DRAWING I (3) Studio problems in expressive drawing. Repeatable for a maximum of 6 units with consent of program director and instructor. Prerequisite: ART 211 or consent of instructor.

ART 614/615/616 GRADUATE STUDIO (2-3, 2-3, 2-3) Independent work for graduate students in field of special interest. Prerequisite: All courses in field completed and written consent of instructor.

ART 618 GRADUATE JEWELRY I (3) Studio problems in shell construction, stone-setting and mechanical joinery. Repeatable for a maximum of 6 units with consent of program director and instructor. Prerequisite: ART 418 or consent of instructor.

ART 620 GRADUATE TYPOGRAPHY (3) Studio problems in the theory, concepts and aesthetics of type. Repeatable for a maximum of 6 units with consent of program director

and instructor. Prerequisite: ART 610 or consent of instructor.

ART 622 GRADUATE EXHIBITION DESIGN (3) Theory, concepts, planning, management, design and installation of art exhibits. Application for professional artists. Prerequisite: Graduate standing.

ART 629 GRADUATE PAINTING I (3) Studio problems in painting: current trends, museum visits and lectures. Repeatable for a maximum of 6 units with consent of program director and instructor. Prerequisite: ART 229 or equivalent.

ART 630 WATERCOLOR (3) Trends and outstanding painters and styles. Studio work, museum visits and lectures. Repeatable for a maximum of 6 units with consent of program director and instructor. Prerequisite: ART 331 or consent of instructor.

ART 632 GRADUATE COMPUTER ART (3) Advanced knowledge and aesthetic insight through computer art production. Lectures, demonstrations, gallery visits and studio work in art department lab. Repeatable for a maximum of 6 units with consent of program director and instructor. Prerequisite: Consent of instructor.

ART 634 GRADUATE PHOTOGRAPHY I (3) Studio problems emphasizing personal investigation of the photographic medium as an art form. Repeatable for a maximum of 6 units with consent of program director and instructor. Prerequisites: ART 334 and consent of instructor.

ART 635 GRADUATE EXPERIMENTAL DIRECTIONS (3) Conceptual, installation and performance art; studio projects. Repeatable for a maximum of 6 units with consent of program director and instructor. Prerequisite: Consent of instructor.

ART 640 GRADUATE SCULPTURE I (3) Studio problems in selected sculptural areas. Repeatable for a maximum of 6 units with

consent of program director and instructor. Prerequisite: ART 340, ART 241, ART 339, ART 342, or any 400-level course; or consent of instructor.

ART 641 INTERACTIVE MEDIA CONCEPT AND THEORY (3) Advanced study of interactive media concept, theory and aesthetics including research and studio application. Repeatable for a maximum of 6 units with consent of program director and instructor. Prerequisite: ART 610.

ART 650 GRADUATE INTAGLIO, RELIEF I (3) Studio problems in intaglio and/or relief processes, including mixed media. Repeatable for a maximum of 6 units with consent of program director and instructor. Prerequisite: ART 349, ART 449 or equivalent.

ART 653 GRAPHICS: LITHOGRAPHY, SERIGRAPHY (3) Studio work for artists with knowledge of lithography and/or serigraphy. Repeatable for a maximum of 6 units with consent of program director and instructor. Prerequisite: ART 347, ART 450 or equivalent.

ART 673 GRADUATE ILLUSTRATION I (3) Studio problems in the concepts and techniques of objectives rendering, expressive painting and sequential imagery. Repeatable for a maximum of 6 units with consent of program director and instructor. Prerequisite: ART 473 or consent of instructor.

ART 678 NEW DIRECTIONS IN PAINTING, EXPERIMENTAL MEDIA AND ART II (3) Continued studio experience: for advanced student with emphasis on personal direction. Prerequisite: Permission of instructor.

ART 694 GRADUATE TRAVEL STUDY (3-6) Global experiences in art. Selected graduate-level research and studio problems in area of special interest. Location and topics to be announced one year prior to travel experience. Course may be repeated. Prerequisite: TU Graduate School acceptance interview and consent of instructor. **ART 708 GRADUATE**

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CERAMIC II (3) Studio problems in selected ceramic areas. Prerequisite: ART 608.

ART 711 GRADUATE DRAWING II (3) Studio problems in selected drawing areas: awareness, imagination and craftsmanship. Prerequisite: ART 611.

ART 715 M.F.A. STUDIO I (3) Independent problems in art. May be repeated for additional credit with art adviser consent. Prerequisites: M.F.A. status and written consent of art adviser. May be taken 8 times for a total of 24 units.

ART 718 GRADUATE JEWELRY II (3) Studio problems in advanced shell construction and surface embellishment. Prerequisite: ART 618.

ART 720 GRADUATE GRAPHIC DESIGN II: PORTFOLIO (3) Studio problems in professional portfolio presentation. Prerequisite: ART 620 or consent of instructor.

ART 729 GRADUATE PAINTING II (3) Studio problems in selected painting areas: watercolor, oil and other media. Prerequisite: ART 629.

ART 731 GRADUATE CERAMICS III (3) Studio problems in selected ceramic areas. Prerequisite: ART 708.

ART 734 GRADUATE PHOTOGRAPHY II (3) Studio problems in selected areas of photography with an emphasis on personal investigation of mixed media. Prerequisite: ART 634.

ART 740 GRADUATE SCULPTURE II (3) Studio problems in selected sculptural areas. Prerequisite: ART 640 or consent of instructor.

ART 750 GRADUATE INTAGLIO, RELIEF II (3) Studio problems in selected printmaking areas: etching, drypoint, aquatint, photo engraving, embossing, collographs, woodcuts, linecuts, wood engraving and subtractive relief. Prerequisite: ART 650.

ART 765 GRADUATE DESIGN FOR THE WWW (3) Authoring techniques and research as related to interactivity, information design and digital imaging. Repeatable for a maximum of 6 units with consent of program director and instructor. Prerequisites: ART 610 and ART 641.

ART 781 GRADUATE ILLUSTRATION II (3) Studio problems in location drawing, figure and costume, experimental media, manuscript interpretation and portfolio analysis. Prerequisite: ART 673.

ART 782 ART TOPICS (3) Visiting instructor teaching contemporary issues in art with written presentations, critiques and discussions. May be repeated for a maximum of 9 units. Prerequisite: Acceptance into the graduate program.

ART 783 M.F.A. SEMINAR (3) Lectures and discussions on the contemporary art scene, aesthetics and art concepts. Oral and written presentations, gallery/museum/studio visits included. Prerequisite: M.F.A. candidate.

ART 784 SEMINAR ON COLLEGE-LEVEL TEACHING (3) Organization and management of studio art classes: critiquing skills, creation and presentation of assignments, developing outlines and grading. Prerequisite: Second-year M.F.A. graduate students and M. Ed. graduate students with departmental consent.

ART 785 M.F.A. STUDIO II (3) Independent problems in art with special emphasis on preparation for M.F.A. project. Prerequisite: Must be taken concurrently with ART 880 M.F.A. project.

ART 795 DIRECTED READING IN ART (3) Extensive reading in an aspect of art. Prerequisites: Graduate standing and consent of art adviser.

ART 880 M.F.A. PROJECT (6) Preparation and installation of selected art works in an exhibition format as a final review for the

M.F.A. degree. A written supportive paper defining the scope and philosophy of the work. Prerequisite: To be taken concurrently with ART 785 during final term of the program.

ART 881 GRADUATE PROJECT IN ART
(3) Exhibition of project plus a paper defining the project's scope and philosophy. Prerequisite: Consent of department chair.

ART EDUCATION (ARED)

ARED 563 AUTHOR-ILLUSTRATOR: INTEGRATION OF VISUAL AND LANGUAGE ARTS AT THE ELEMENTARY LEVEL (3) Fiction is examined as illustration and text to develop strategies for enhancing reading and writing skills applicable within art education programs at the elementary level. Prerequisites: Minimum of 2.75 overall GPA and a 3.00 GPA in major. Consent of Art Education program adviser.

ARED 564 AUTHOR-ILLUSTRATOR STUDIES: INTEGRATION OF VISUAL AND LANGUAGE ARTS AT THE SECONDARY LEVEL (3) Non-fiction is examined as illustration and text to develop strategies for enhancing reading and writing skills in art education at the middle and high school levels. Special permit required. Prerequisite: Consent of instructor.

ARED 607 ARTIST-TEACHER CONNECTION (3) Exploration of the dual aspects of the art educator as artist/teacher. Includes studio work, museum trips, journal writing, research of cultural/historical expressions, and unit planning relevant to K-12 education.

ARED 608 INTERDISCIPLINARY ART EDUCATION (3) Investigation of interdisciplinary connections between art and other subjects in the K-12 curriculum. Includes studio projects and unit and program planning.

ARED 609 MULTICULTURAL ART EDUCATION (3) The study of multicultural art.

Includes investigation of cultural contexts, studio processes and teaching strategies in grades K-12. Repeatable for a maximum of 6 units.

ARED 797 SEMINAR IN ART EDUCATION (3) Investigation of problems and theories in art education and related fields. Prerequisite: EDUC 601.

ARED 880 ART EDUCATION PROJECT I
(3) Introduction to art education thesis project. Includes the writing of a proposal, outline of project and research in selected area. Repeatable for 1-3 additional units with consent of program director and instructor. Prerequisites: EDUC 605 and ARED 797.

ARED 881 ART EDUCATION PROJECT II
(3) Continuation of the writing of the art education project. Includes implementation, analysis and evaluation of study. Prerequisite: ARED 880.

ARED 885 ART EDUCATION PROJECT CONTINUUM (1) Continuation of project work if not completed in ARED 880 or ARED 881.

ART HISTORY (ARTH)

ARTH 500 STUDY ABROAD (1-6) Travel and study abroad; various topics in the history of art. Prerequisite: GPA of 3.25.

ARTH 585 SEMINAR IN ART HISTORY
(3) Intensive analysis of a single artist or a defined historical period for a stylistic development. Directed reading in both period and contemporary sources. Discussions and museum tours; variety in content each term. Prerequisites: ARTH 222 and one upper-division art history course or consent of instructor.

ARTH 595 INDEPENDENT STUDY IN ART HISTORY (3) Advanced research and examination of a topic in art history. Prerequisites: Art Survey I, Survey II and at least one 300-level art history course.

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ARTH 596 INDEPENDENT STUDY IN ART HISTORY (3) Advanced research and examination of a topic in art history. Prerequisites: Art Survey I, Survey II and at least one 300-level art history course.

ARTH 597 INDEPENDENT STUDY IN ART HISTORY (3) Advanced research and examination of a topic in art history. Prerequisites: Art Survey I, Survey II and at least one 300-level art history course.

ARTH 600 STUDY ABROAD (1-6) Travel and study abroad; various topics in the history of art. Prerequisite: GPA of 3.25.

ARTH 681 SEMINAR IN ART HISTORY (3) Research on an architect, artist or historical movement. Course may be repeated. Prerequisite: Graduate standing.

ARTH 770-779 SPECIAL TOPICS: ART HISTORY (3) Selected topics designed for independent research in art. Prerequisites: Graduate standing and consent of art adviser.

ARTH 795 DIRECTED READINGS IN ART HISTORY (3) Extensive reading on a period, development or aspect of art. Prerequisite: Consent of instructor.

AUDIOLOGY COMMUNICATION SCIENCE DISORDERS (ACSD)

ACSD 600 SPECIAL TOPICS IN AUDIOLOGY (1-3) Current topics in audiology. May be repeated for credit provided a different topic is covered. The content of the course will depend upon mutual faculty and student interest. Prerequisite: Consent of department.

ACSD 601 INTRODUCTION TO AUDIOLOGY PRACTICE (1) Observation and participation in audiology clinical practicum. Professional issues related to clinical practice will also be discussed. Prerequisites: None.

ACSD 603 ANATOMY AND PHYSIOLOGY OF THE PERIPHERAL AUDITORY SYSTEM (3) Neurological structure and function of the peripheral auditory and vestibular system. Prerequisites: BIOL 110 and/or consent of the department.

ACSD 604 NEUROANATOMY AND PHYSIOLOGY OF THE CENTRAL AUDITORY AND VESTIBULAR SYSTEMS (2) Neurological structure and function of the central auditory nervous systems and the central vestibular pathways and vestibular-ocular reflex. Prerequisites: ACSD 603 and/or consent of instructor.

ACSD 605 COUNSELING IN AUDIOLOGY (2) This course is designed to help students to understand the theoretical framework for counseling in audiology and to develop and improve their skills with patients with hearing loss and their families. Prerequisites: ACSD 690 and/or consent of department.

ACSD 606 PHARMACOLOGY IN AUDIOLOGY (2) This course will provide an introduction to clinical pharmacology and address specific issues related to pharmacotherapeutics critical in the management of patients in an audiological practice. Prerequisites: ACSD 621, ACSD 721, and/or consent of department. Open only to audiology doctoral students.

ACSC 607 GENETICS IN AUDIOLOGY (1) This course will cover the basic principles of human genetics and basic principles of heredity. The focus of this course will be on how genetic causes of hearing loss impact the function of the auditory system and the impact of these disorders on the patient and his/her family. Restricted to Doctor of Audiology students. Prerequisites: ACSD 603 and/or consent of department.

ACSD 611 ACOUSTICS AND PSYCHOACOUSTICS (2) Study of the physical and psychological properties of sound.

ACSD 621 AUDITORY DIAGNOSTICS I (3)

Administration and interpretation of audiometric procedures for differential diagnosis of auditory pathology. Prerequisites: SPPA 321 and/or consent of department.

ACSD 622 AUDITORY DIAGNOSTICS I

LABORATORY (1) Laboratory exercise will be conducted to demonstrate the administration and interpretation of audiometric procedures for differential diagnosis of auditory pathology. Must be taken concurrently with ACSD 621. Prerequisites: Concurrent enrollment in ACSD 621 and/or department consent. May be repeated for a maximum of 6 units.

ACSD 645 COMMUNICATION AND

AGING (2) The impact of the aging process on communication, and roles of health care professionals in the rehabilitation process of older adults with communication difficulties. Prerequisites: Graduate standing and/or consent of the department

ACSD 655 HEARING AIDS I: SELECTION, VERIFICATION AND VALIDATION OF

AMPLIFICATION (3) Theoretical foundation and clinical application of amplification process in selection and fitting of hearing aids. Prerequisites: Graduate standing and/or consent of department.

ACSD 690 AUDIOLOGY CLINIC ON CAMPUS I (3)

On-campus supervised audiology clinical experience in the Speech-Language and Hearing Center at Towson University with children and adults who have communication impairments. Prerequisites: Completed communication screening, ACSD 601 and/or consent of department.

ACSD 706 AUDIOLOGY PRACTICE MAN-

AGEMENT (2) Audiology practice management issues including financial management, personnel issues, insurance, licensing, certification, computer applications, and ethics. Prerequisite: Au.D. student and/or consent of department.

ACSD 714 RESEARCH METHODS IN

AUDIOLOGY (2) Application of the scientific method to audiological research; evolution of research design; statistical analysis. Prerequisites: Undergraduate course in behavioral statistics and admission to doctoral program.

ACSD 721 AUDITORY DIAGNOSTICS II

(3) Differential diagnosis of auditory pathology based on audiological test battery. The development of appropriate recommendations and patient management. Prerequisite: ACSD 621 and/or consent of department.

ACSD 723 MEDICAL AUDIOLOGY (2)

This course will provide detailed information on pathologies of the peripheral and central auditory and vestibular systems. Common medical terminology will also be reviewed. Restricted to Doctor of Audiology students. Prerequisites: ACSD 621 and/or consent of department.

ACSD 731 CALIBRATION AND INSTRUMENTATION (3)

Electroacoustic calibration of audiology equipment using appropriate ANSI standards for calibration of the diagnostic and portable audiometers, immittance bridges and soundfield systems. Prerequisite: ACSD 611.

ACSD 743 ELECTROPHYSIOLOGIC EVALUATION OF THE PERIPHERAL AUDITORY SYSTEM (3)

Electrophysiologic test procedures used in assessing the peripheral auditory system. Prerequisites: ACSD 603 and/or consent of instructor.

ACSD 744 ELECTROPHYSIOLOGIC EVALUATION OF THE CENTRAL AUDITORY NERVOUS SYSTEM (3)

Electrophysiologic test procedures used in assessing the central auditory nervous system. Prerequisites: ACSD 743 and/or consent of department.

ACSD 745 AUDIOLOGY CLINIC ON CAMPUS II (3)

Second on-campus supervised audiology clinical experience in the Speech-Language and Hearing Center at Towson University. Prerequisites: ACSD 690 and/or consent of department.

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ACSD 746 AUDIOLOGY CLINIC ON CAMPUS III (3) Third on-campus supervised audiology clinical experience in the Speech-Language and Hearing Center at Towson University with children and adults who have communication impairments. Prerequisites: ACSD 745 and/or consent of department.

ACSD 747 AUDIOLOGY CLINIC OFF CAMPUS I (2) Audiology off-campus practicum clinical sequence I. Prerequisites: ACSD 746, a passing score on the Audiology Gateway Assessment (AGA): oral/practical and written portions, and consent of department.

ACSD 748 AUDIOLOGY CLINIC OFF CAMPUS II (23) Audiology off-campus practicum clinical sequence II. Prerequisites: ACSD 747 and/or consent of department.

ACSD 751 HEARING CONSERVATION (2) Auditory and non-auditory effects of noise exposure, legislative issues, instrumentation, sound measurement and classroom acoustics; the audiologist's role in implementing hearing conservation programs. Hearing conservation practicum is included.

ACSD 753 PEDIATRIC AND EDUCATIONAL AUDIOLOGY (3) Principles and techniques for identification and evaluation of auditory status and selection of hearing aids in children; the audiologist's role in facilitating medical and educational management, classroom acoustics, behavioral and physiological testing, genetics, embryology, counseling and federal legislation. Prerequisites: ACSD 721 and/or consent of instructor.

ACSD 754 AUDIOLOGIC REHABILITATION ACROSS THE LIFESPAN (2) Audiologist's role in the rehabilitation of adults and children with hearing loss. This course is open to audiology doctoral students. A special permit is required for enrollment.

ACSD 755 HEARING AIDS II: HEARING AID MODIFICATION LAB (3) Amplification system and modification methodologies used to enhance hearing aid performance.

Analysis of special purpose circuits, digital and analog.

ACSD 756 CERUMEN MANAGEMENT (1) Scope of practice, liability and licensure issues in cerumen management; physiology and pathophysiology; management procedures; universal precautions; and reimbursement issues. Prerequisites: ACSD 603 and/or consent of department.

ACSD 790 AUDIOLOGY CLINIC ON CAMPUS CONTINUUM (3) Audiology on-campus practicum for audiology doctoral students continuing in on campus experiences. This course is open to audiology doctoral students. A special permit is required for enrollment. Prerequisites: ACSD 746 and/or consent of department. May be repeated for a maximum of 6 units.

ACSD 796 DOCTORAL THESIS PROPOSAL DEVELOPMENT I (2) A critical analysis of literature for the doctoral thesis. Re-enrollment is required when course requirements are not completed to a maximum of 4 units. Prerequisites: ACSD 714 and/or consent of department.

ACSD 797 DOCTORAL THESIS PROPOSAL DEVELOPMENT II (2) Completing the audiology doctoral thesis proposal with faculty guidance. Re-enrollment is required when course requirements are not completed to a maximum of 6 units. Prerequisites: ACSD 796 and/or consent of department.

ACSD 843 VESTIBULAR ASSESSMENT AND REHABILITATION (32) Assessment and treatment of balance and related auditory disorders. Prerequisites: ACSD 603, 604 and/or consent of instructor.

ACSD 844 TINNITUS (1) Assessment and management of tinnitus. Prerequisites: ACSD 603, ACSD 604, and/or consent of instructor.

ACSD 847 AUDIOLOGY CLINIC OFF CAMPUS III (2) Audiology off-campus practicum clinical sequence III. Prerequisites: ACSD 748 and/or consent of instructor.

ACSD 848 AUDIOLOGY CLINIC OFF CAMPUS IV (2) Audiology clinic off-campus IV. Prerequisites: ACSD 847 and/or consent of instructor.

ACSD 849 AUDIOLOGY CLINIC OFF CAMPUS CONTINUUM (2) Audiology off campus practicum. Follows audiology clinic off campus IV if needed. This course is only open to audiology doctoral students. May be repeated for a maximum of 6 units. Special permit is required. Prerequisites: ACSD 848 and/or consent of the department.

ACSD 853 COCHLEAR IMPLANTS (3) Audiologic, surgical, educational, communication and rehabilitation aspects of cochlear implantation. Prerequisites: ACSD 753 and/or consent of instructor.

ACSD 855 HEARING AIDS III: SEMINAR IN ADVANCED AMPLIFICATION (3) Advanced signal processing schemes. Non-traditional amplification options and provision of real-world hearing aid fitting experience. Prerequisites: ACSD 655 and/or consent of department.

ACSD 898 AUDIOLOGY DOCTORAL THESIS (3) Continued progress toward the completion of the Audiology Doctoral Thesis. May be repeated for a maximum of 6 units. Prerequisites: ACSD 714, ACSD 796, ACSD 797, ACSD 896 and/or consent of the department.

ACSD 899 THESIS CONTINUUM (1-3) Completion of the Audiology Doctoral thesis for students who have already enrolled in 6 units of doctoral thesis.

ACSD 998 AUDIOLOGY CLINICAL EXTERNSHIP (6-9) Capstone audiological clinical experience. Identification, assessment and treatment of auditory disorders. Prerequisite: Consent of department.

BIOLOGY (BIOL)

BIOL 502 GENERAL ECOLOGY (4) Effects of the abiotic and biotic environment on distribution and abundance of organisms; organization of biological communities, ecosystems, evolution of different reproductive strategies and application of ecological principles to natural resource conservation. Several day-long trips required. Prerequisites: BIOL 205 and/or BIOL 207 or equivalents.

BIOL 503 ADVANCED GENETICS (3) Emphasis on the molecular basis of gene action. Discussion of current work and methods related to the problem of gene structure, function and mutation including the translation and regulation of genetic information. Prerequisite: BIOL 309 or equivalent.

BIOL 506 LIMNOLOGY (4) Physical, chemical and biological factors that affect freshwater organisms, and some of the standard methods used to analyze these factors. Average of 3 laboratory hours per week. Prerequisites: BIOL 205, BIOL 207 or equivalents; BIOL 402/502 or equivalent recommended.

BIOL 508 CELL BIOLOGY (4) The molecular and morphological organization of the cell in relationship to cellular activities with emphasis on eukaryotic cells. Prerequisites: BIOL 309; CHEM 330 and CHEM 331 or equivalents.

BIOL 509 LIFE SCIENCES (3) Living organisms in the environment, emphasizing modes of scientific inquiry and the utilization of living organisms in the classroom. For students pursuing a certificate to teach elementary education; does not count toward M.S. degree in Biology. Prerequisite: BIOL 115 or equivalent. Special permit required from elementary education department.

BIOL 510 CONSERVATION BIOLOGY (3) Application of ecological theory to conservation of biological diversity. Exploration of past and present processes leading to and maintaining diversity and how such processes are

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impacted by human disturbance. Average of three laboratory hours per week. Prerequisites: BIOL 202 (BIOL II: Intro to Ecology, Evolution and Behavior) and 10 units of biology or combination of 10 units from biology, geography or physical science.

BIOL 513 EVOLUTION (3) Concepts of biological evolution, the history of the development of these concepts and current topics in evolutionary biology. Prerequisites: BIOL 205 or BIOL 207 or equivalents.

BIOL 515 MEDICAL MICROBIOLOGY (4) Pathogenesis of bacterial, viral, rickettsial and fungal diseases with emphasis on medically important bacteria and microbiological techniques. Recommended for students pursuing a career in medical sciences. Either this course or BIOL 518, but not both, may count toward an M.S. in Biology.

BIOL 518 MICROBIOLOGY (4) Biology of microorganisms with emphasis on bacteria. Microbial morphology, physiology and genetics, and the role of microorganisms in natural processes and disease. Laboratory will include methods of observing, isolating and identifying bacteria. Either this course or BIOL 515, but not both, may count toward the M.S. degree in Biology.

BIOL 521 IMMUNOLOGY (4) Fundamental principles of immunology with emphasis on the nature of antibodies and antigens, blood groups, antibody-antigen reactions, hypersensitivity, autoimmunization, tumor immunology, artificial grafting and the preparation of vaccines. Prerequisite: BIOL 315/515 or 318/518 or equivalent.

BIOL 525 DISSECTION OF THE UPPER EXTREMITY (2) Gross anatomical dissection of the human upper extremity including the muscles, nerves and blood vessels which supply the appendage. Special emphasis will be placed on development of techniques which assure careful and accurate dissection. Will be offered only in the Minimester. Prerequisite: BIOL 213 or equivalent, and consent of instructor.

BIOL 527 NEUROMUSCULAR MECHANISMS OF THE UPPER BODY (2) Gross anatomy of the human upper extremity and cranial nerves. Upper extremity emphasis includes muscle action, innervation and major spinal cord pathways. Olfactory, optic, auditory and vestibular functions of cranial nerves are stressed. One lecture and two laboratory periods per week. Prerequisites: Undergraduate course in human or vertebrate anatomy and permission of instructor.

BIOL 528 VIROLOGY (3) Cell and molecular biology of viruses. General virology, including pathogenesis and mortality, interaction with the immune system, and some medically relevant viruses. Prerequisite: BIOL 315/515 or BIOL 318/518 or BIOL 408/409/602 or equivalent.

BIOL 530 HORTICULTURE (4) Plant culture and application to developing desirable planting on home grounds or in public places with examples of appropriate types of plants for specific situations. An average of 3 laboratory hours per week. Prerequisite: BIOL 205 or equivalent.

BIOL 532 VASCULAR PLANT TAXONOMY (4) A study of the history and principles of vascular plant systematics with laboratory time devoted to collection and identification of plants in the local flora. An average of 3 laboratory hours per week. Prerequisites: BIOL 205, BIOL 331/531, the equivalents or consent of instructor.

BIOL 535 PLANT ECOLOGY (4) Environmental factors and processes which control plant distribution, plant communities and vegetational biomes of North America. An average of 3 laboratory hours per week with two required three-day weekend field trips and a Saturday field trip emphasizing examples from Maryland and the mid-Atlantic states. Prerequisite: BIOL 205 or equivalent.

BIOL 536 PLANT PHYSIOLOGY (4) Life functions of plants as related to structure at all levels: cells, organs and the complete organ-

ism. Consideration of the interaction of environmental and genetic factors on plant metabolism. Average of 3 laboratory hours per week. Prerequisite: BIOL 205 or equivalent.

BIOL 546 TROPICAL ECOLOGY AND CONSERVATION (3) Evolution and ecology of tropical ecosystems. Mechanisms that maintain tropical diversity, species interactions, anthropogenic impacts and conservation strategies. Prerequisites: BIOL 202, either BIOL 205 or 207 or 208, or consent of instructor.

BIOL 547 TROPICAL FIELD ECOLOGY (4) Field course set in the tropical rainforest. Includes exploration of different tropical ecosystems and training in techniques to carry out field research. Students will develop a research proposal and conduct their independent research projects including data collection, statistical analyses, write-up and an oral presentation of results. Prerequisites: Permit required. Permission of instructor.

BIOL 553 INVERTEBRATE ZOOLOGY (4) Aquatic and terrestrial species of phyla from the Protozoa through the Echinodermata with special emphasis on local forms. Economic, ecological and taxonomic considerations. Average of 3 laboratory hours per week. Prerequisite: BIOL 207 or equivalent.

BIOL 555 FISH BIOLOGY (4) Introduction to the evolutionary history, functional biology, ecology and conservation of fishes. Laboratory experiences emphasize both identification of fishes and experiments designed to understand their functional biology. Independent research project and weekend field trips are required. Average of 3 hours of lecture and 3 hours of lab per week. Prerequisite: BIOL 207 and CHEM 111 or equivalents; BIOL 325 or equivalent recommended.

BIOL 556 ORNITHOLOGY (4) Evolutionary history, morphology, physiology, behavior and ecology of birds. One daylong weekend field trip and several early-morning weekday field trips required. Prerequisite: BIOL 207 or equivalent.

BIOL 560 HISTOLOGY (4) Tissues of the vertebrate body. Average of 2 laboratory hours per week. Prerequisite: BIOL 214 or equivalent.

BIOL 561 ENTOMOLOGY (4) Laboratory and field course in insects. Identification and recognition of the more common families and orders and a study of their structure, behavior, ecology, economic importance and control. Average of 3 laboratory hours per week. Prerequisite: BIOL 207 or equivalent.

BIOL 563 DEVELOPMENTAL BIOLOGY (4) Embryonic development of animals, including differentiation, morphogenesis, pattern formation and organogenesis. Emphasis on cellular and molecular mechanisms governing these processes. Average of 3 laboratory hours per week. Prerequisites: BIOL 309 and either BIOL 214 or BIOL 325.

BIOL 565 MAMMALIAN PHYSIOLOGY (4) An advanced physiology course which draws heavily upon knowledge gained in earlier courses to understand the aspects of organismal function unique to mammals. The course attempts to integrate all levels of organismal processes, ranging from the molecular to the whole animal, in order to gain an understanding of mammalian function and place it within an evolutionary and ecological context. The laboratories emphasize hands-on learning and experiences with live animals. Minimum of 3 laboratory hours per week. Prerequisites: BIOL 213 and 214 or BIOL 325 or BIOL 469 or equivalents; CHEM 332 and 351 or equivalents recommended.

BIOL 567 HERPETOLOGY (4) Systematic survey of the modern reptiles and amphibians. Emphasis is placed on the evolution of morphological and behavioral traits which have enabled the reptiles and amphibians to successfully exploit their individual habitats. Laboratory includes systematic classification, student seminars and field work. Average of 3 laboratory hours per week. Prerequisite: BIOL 207 or equivalent.

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BIOL 568 ENDOCRINOLOGY (3) Endocrine mechanisms regulating homeostasis and functional integrity of animals with emphasis on vertebrates. Prerequisite: BIOL 214 or equivalent.

BIOL 569 COMPARATIVE ANIMAL PHYSIOLOGY (4) Functions, interactions and regulation of organ systems in animals and their roles in sensory perception and integration, movement, oxygen utilization, energy procurement, temperature regulation and water metabolism. Prerequisites: BIOL 213, BIOL 214 and BIOL 325 or equivalents.

BIOL 570 ADVANCED PHYSIOLOGY (4-6) Physiological topics discussed at the molecular, cellular, organ, organ system and whole organism levels. Emphasis on integrating knowledge gained in prerequisite physiology courses and recent discoveries. Laboratory component will emphasize the scientific method, interpretation and quantitative skills. Topics may include osmoregulation, gas exchange, nutrient delivery and use, thermoregulation, locomotion and regulation via the neural and endocrine systems. Prerequisites: BIOL 214 or BIOL 325, CHEM 111 (CHEM 332 and BIOL 207 or 208 recommended) or equivalents.

BIOL 571 ANIMAL BEHAVIOR (4) Description, development, control, adaptive value and evolution of animal behavior. Includes 2 hours of recitation per week. Prerequisite: BIOL 207 or equivalent courses.

BIOL 581 DIRECTED READING IN BIOLOGY (1-3) Independent reading in an area selected by the student in consultation with the instructor.

BIOL 582 ENVIRONMENTAL EDUCATION & SERVICE LEARNING IN THE TROPICS (3) This course is designed for those majoring in the sciences or education fields with an interest in environmental education. Coursework will take place largely in the tropics of Costa Rica. Emphasis will be placed on the application of forest ecology concepts to K-12 environmental education and human use

and management of natural resources in the tropics. Prerequisites: Permission of instructor.

BIOL 584 SEMINAR IN ECOLOGY, EVOLUTION AND BEHAVIOR (1) Discussion and analysis of current research in ecology, conservation biology, environmental science, evolution and animal behavior. May be repeated. Prerequisites: 12 units in biology, and one or more of the following: BIOL 310, 347, 371, 402, 411, 413, 435, or permission of the instructor.

BIOL 585 SEMINAR IN APPLIED BIOTECHNOLOGY (1) Current research articles using applications of biotechnology are reviewed. Prerequisites: 12 units in biology.

BIOL 594 TRAVEL STUDY (1-3) A detailed investigation of field-oriented problems in biology away from the TU campus. Location and topics to be selected by the department and instructors sponsoring the program. Prerequisite: Consent of instructor; may be repeated for a maximum of 3 units.

BIOL 601 CURRENT TOPICS IN BIOLOGY (1-4) Current topics in a specific area of biology. The area will vary each time the course is offered. May be repeated. Prerequisite: A suitable background in the area emphasized.

BIOL 602 MOLECULAR BIOLOGY (3) Overview of the base principles of molecular biology including: macromolecules, nucleic acid/protein interactions, replication, transcription, translation, mutations, DNA repair mechanisms, gene regulation and tools and applications of recombinant DNA technology.

BIOL 603 DATA ANALYSIS AND INTERPRETATION FOR BIOLOGISTS (3) Information techniques and skills useful in gathering, analyzing and interpreting data in the biological sciences. Topics include introduction to the role of statistical analysis in the biological sciences, hypothesis testing, experimental design and current controversies in use of statistics in the biological sciences.

BIOL 604 MECHANISMS IN ANIMAL PHYSIOLOGY (3) Functional design of animal organ systems and discussion of selected adaptations permitting survival in challenging environments.

BIOL 606 BIOCHEMICAL ADAPTATIONS (3) Characterization of adaptational challenges facing biochemical systems and how these systems have been modified through evolution to permit comparable structures and processes to be persistent in all organisms and in all environments. The underlying unity of biochemical design existing in the face of remarkable adaptive diversification is a theme. Prerequisite: BIOL 604 or upper-level advanced undergraduate course in physiology.

BIOL 607 EVOLUTIONARY AND ECOLOGICAL PHYSIOLOGY (3) The study of how physiological characters evolve and contribute to organismal success and the nature of research in this field. Prerequisites: Previous evolution and/or physiology course highly recommended.

BIOLOGY 608 SYSTEMATIC BIOLOGY (3) Theory and procedures of modern systematic biology with emphasis on data gathering, use of morphological and/or molecular characters, analysis and interpretation of results. A variety of approaches for analysis of systematic/phylogenetic data and methods for determining support of phylogenetic hypothesis will be explored. Prerequisites: This course is open to all graduate students and advanced undergraduates. The formal prerequisites are limited to the biology core classes through the junior year (BIOL 201, 202, 205, 207, 208, 432, or equivalent).

BIOL 609 COMMUNITY ANALYSIS AND BIOASSESSMENT (3) Principles of design of environmental sampling studies; statistical analysis of data composed of multiple species and environmental variables. Use of statistical software for data analysis projects. Emphasis on application of these methods in bioassessment of aquatic ecosystems, as well as community ecology and evolution. Prerequisite:

BIOL 610 or ENVS 604 or equivalent at the upper-undergraduate level.

BIOL 610 POPULATION AND COMMUNITY BIOLOGY (3) Processes in biological populations, including population growth, competition and predation, analyzed by the use of conceptual-systems models and simple mathematical models. Prerequisites: BIOL 402/502, BIOL 413/513 or equivalents.

BIOL 612 MOLECULAR ECOLOGY AND EVOLUTION (3) Use of molecular techniques in ecology and evolution. Application of DNA sequencing, PCR analysis and DNA fingerprinting to understanding genome evolution, the species concept, evolutionary basis of behavior, population structure and gene flow and efforts in species conservation. Prerequisite: BIOL 602 or permission of instructor.

BIOL 614 APPLIED BIOTECHNOLOGY (3) Overview of basic recombinant DNA technology, gene expression and regulation; medical, agricultural and ecological examples of applied biotechnology; regulations, risks, benefits and bioethics of biotechnology. Prerequisite: BIOL 602 or permission of instructor.

BIOL 615 PATHOGENIC MICROBIOLOGY (3) Pathogenic bacteria and viruses, including virulence of causative agents, epidemiology, pathogenesis, diagnosis, prevention and treatment of representative bacterial and viral diseases. Prerequisite: BIOL 421/521, BIOL 315/515 or 318/518 or equivalents.

BIOL 616 MEMBRANE BIOLOGY (3) Structure, function and biogenesis of biological membranes. Emphasis on role of membrane in cellular homeostasis, energy transduction and interaction with the extracellular environment. Multidisciplinary perspective taken, drawing on information from molecular biology, cell biology and biophysics. Extensive use of current literature. Prerequisite: BIOL 602 or permission of instructor.

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BIOL 617 MOLECULAR MECHANISMS OF DEVELOPMENT (3) Molecular and cellular aspects of developmental processes. Emphasis on vertebrate development. Prerequisite: BIOL 602.

BIOL 618 MOLECULAR MEDICINE (3) Molecular biology as it applies to medicine, including molecular genetic approaches to clone/detect disease genes, analysis of gene function based on human/microbial homologies, prenatal and neonatal diagnosis/screening, tracking infectious disease outbreaks, molecular therapies for disease and impact of human genome project. Ethical issues raised by application of molecular methodology also discussed. Prerequisite: BIOL 602 or permission of instructor.

BIOL 619 ENVIRONMENTAL MICROBIOLOGY (3) Topics to be covered include the historical importance of environmental microbiology, the different methods of molecular genetic analysis, microbially mediated biogeochemical cycles and their global importance, the adaptability of micro-organisms to different environments, microbial functional metabolic plasticity facilitation, xenobiotic compound degradation, and the use and importance of metagenomics in environmental microbiology. Prerequisites: None.

BIOL 622 GENE EXPRESSION AND REGULATION (3) Examining how changes from the DNA level to the protein level alter the resulting gene's final expression. Special emphasis on eukaryotic mRNA stability and translatability and on eukaryotic post-translational modifications. Prerequisite: BIOL 602 or permission of instructor.

BIOL 635 PHYSIOLOGICAL PLANT ECOLOGY (3) Interactions of plants with the physical environment at a biochemical, physiological and organismal level of integration. Prerequisite: BIOL 402/502, BIOL 435/535 or BIOL 436/536 or equivalents.

BIOL 636 PLANT PHYSIOLOGICAL ECOLOGY: METHODS AND INSTRUMENTATION (2) Methods of analysis of plant physiological responses to environmental factors. Theory, application and interpretation of measurements of plant water relations, nutrient uptake, photosynthesis and growth. Prerequisite: BIOL 635 or concurrent enrollment.

BIOL 651 OSMOREGULATION (3) Mechanisms of salt and water regulations in animals. Emphasis on structural and functional modifications in representative species which permit survival in osmotically stressful environments. Prerequisite: BIOL 604.

BIOL 653 BIOLOGY OF FRESHWATER INVERTEBRATES (4) Biology of free-living freshwater macro-invertebrates is emphasized. Extensive field and laboratory work deals with morphological, taxonomic, ecological and behavioral features of selected macro-invertebrates. Students must demonstrate a knowledge of scientific literature pertaining to identification of selected genera, demonstrate identification skills via laboratory practicals and collection of local macroinvertebrate fauna. Field trips, collection of macro-invertebrates identified to the genus level and student seminars are required. Prerequisites: BIOL 353/553 and 461/561 or equivalents recommended.

BIOL 654 LANDSCAPE ECOLOGY (3) Spatial and temporal landscape heterogeneity, how it arises, its quantification and its influence on population, community and ecosystem dynamics over multiple scales. Prerequisite: Upper-level undergraduate course in ecology or permission of instructor.

BIOL 701 NON-THESIS RESEARCH (1-3) Field or laboratory research in addition to and/or unrelated to any thesis research. Prerequisite: Student must submit research proposal prior to enrollment. Requires special permit from graduate program director.

BIOL 703 INDEPENDENT STUDY (1-3) Independent exploration of the concepts,

research techniques and recent discoveries in a sub-discipline of the biological sciences in collaboration with a faculty mentor. Prerequisite: Student must submit study proposal prior to enrollment. Requires special permit from graduate program director.

BIOL 731 PLANT COMMUNITY ECOLOGY (3) Analysis of plant community ecology through the historical development of the concept of plant succession. Prerequisites: BIOL 402/502 or 435/535 or equivalents, BIOL 610 and 9 graduate units in biology.

BIOL 781 RECENT ADVANCES IN BIOLOGY (1-4) Factual and technological advances in the following five areas: botany, zoology, ecology, genetics and evolution, cellular and molecular biology. Prerequisite: 9 graduate units in biology.

BIOL 796 PROFESSIONAL ASPECTS OF BIOLOGY (2) Information, techniques and skills useful in completing an M.S. degree, gaining employment and functioning as a professional biologist, or gaining access to Ph.D. programs. Topics include literature retrieval, the publication process, obtaining funds for research, presentations at national meetings, job-hunting and professional ethics.

BIOL 797 GRADUATE SEMINAR (1) Student reports and discussion dealing with biological research. An outline of the seminar and bibliography are required. A maximum of 1 unit is allowable for an M.S. degree in Biology.

BIOL 896 THESIS (1-6) Thesis research. See program director for permit.

BIOL 897 THESIS (6) An original investigation to be pursued under the direction of one or more faculty members. Credit granted after thesis acceptance.

BIOL 898 THESIS (3) The previous course, BIOL 897, taken over two consecutive terms.

BIOL 899 THESIS CONTINUUM (1)

CHEMICAL DEPENDENCY COUNSELING AND EDUCATION (CDCE)

CDCE 502 HEALTH AND SOCIAL WELFARE PROMOTION: HEALTH COMMUNICATION (3) Analysis of program planning, evaluation and communication theory with an emphasis on the persuasion process to improve health and other social conditions of living. Application of theoretical principles will be augmented with specific skills development to construct, implement and evaluate promotion efforts. Prerequisite: HLTH 101 or equivalent.

CDCE 503 COGNITIVE BEHAVIORAL TREATMENT OF ADDICTIONS (3) Issues of substance abuse, referrals, clinical assessments and developing cognitive-behavioral counseling strategies for successful intervention. Prerequisites: 6 lower-level units in chemical dependency counseling.

CDCE 505 PROFESSIONAL STANDARDS AND ETHICAL RESPONSIBILITIES (3) Focus on the professional standards and ethical guideline and principles that underlie professional practice in chemical dependency and other related counseling fields. Prerequisite: 6 lower-level units in chemical dependency counseling.

CDCE 570-575 SPECIAL TOPICS IN CHEMICAL DEPENDENCY (3) Focuses on contemporary issues related to chemical dependency counseling, rehabilitation and/or education. Prerequisite: 6 lower-level units in chemical dependency counseling or education.

CHEMISTRY (CHEM)

CHEM 500 SEMINAR IN CHEMISTRY (1) Introduction to chemical literature. Attendance at all seminars and presentation of seminars to the chemistry department on topics selected by the chemistry faculty or selected by the student and approved by the faculty. One and one-half hour seminar period. Pre-

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requisites: CHEM 213/215, CHEM 332. Co-requisite: CHEM 340, 341, 342 or 345. Offered each term.

CHEM 501-504 SPECIAL PROBLEMS IN CHEMISTRY (1-3) A laboratory or library problem in any particular area of chemistry to be selected by the student in consultation with the instructor. Students are required to submit a written report. Prerequisite: Written consent of instructor. Offered each term; may be repeated for credit.

CHEM 505-508 INTRODUCTION TO RESEARCH IN CHEMISTRY (1-3) Individual laboratory and/or library investigation in research interest of an instructor. At the completion of a project the student must write a formal research paper on the work done and the principles involved. The student's performance will be evaluated by the research director and selected members of the faculty. Prerequisite: Consent of instructor. Offered each term; may be repeated for credit.

CHEM 536 ETHICS IN THE PHYSICAL SCIENCES (2) Discussion of the integrity of the scientific literature and the responsibilities of scientists to peers, proteges, employers and the public. Examination of principles and of case studies in the physical sciences. Not open to students who have taken WRIT 301.

CHEM 562 CHEMICAL AND BACTERIOLOGICAL STUDIES ON WATER POLLUTION (3) Deals mainly with water pollution: causes, effects and cures. Considers details of water and waste treatment. Emphasizes technical details of analysis of water. Concerns standards of water purity and variables involved. Demonstration of analytical methods will be given. Case studies and applications are viable approaches to this topic. Three lecture hours. Prerequisites: BIOL 102 and CHEM 101 or 110. Offered through College of Graduate Studies and Research (evening and summer) if sufficient demand.

CHEM 564 CHEMISTRY OF DANGEROUS DRUGS (3) A study of the chemistry,

methods of detection and analysis of narcotics, depressants, stimulants and hallucinogens. Also, the influence of physicochemical properties upon the pharmacological effects of drug-receptor interactions. Historical, forensic and socio-economic implications associated with drug abuse will also be reviewed. Three lecture hours. Prerequisites: CHEM 330 and CHEM 351 or CHEM 331/332; CHEM 210 or CHEM 213/215 recommended.

CHEM 566 POLYMER CHEMISTRY (3) Course will cover the following aspects of polymers: structure, physical properties, methods of preparation, rheology, mechanical properties, degradation and stabilization, application and fabrication and related contemporary topics. Carbon chain and hetero-chain polymers will be discussed and spectroscopic methods of analysis (IR, UV and NMR) will be presented. Three lecture hours. Prerequisites: CHEM 101 or 110, CHEM 102 or 111, CHEM 331 and CHEM 332.

CHEM 568 FORENSIC CHEMISTRY (3) Introduction to chemical and physical analyses used by a modern crime laboratory in the evaluation of physical evidence encountered in criminal acts. Areas of concentration will include drug analysis toxicology, forensic serology, explosives analysis, arson examination, firearms and tool marks and trace evidence. Emphasis will be placed on the value of such examinations as presented by the expert witness in criminal trial. Three lecture hours. Prerequisites: CHEM 101 or 110, CHEM 102 or 111, CHEM 210 or CHEM 213/215, CHEM 330 or CHEM 332.

CHEM 580 CHEMICAL TOXICOLOGY (3) Study of the fate, effects and mechanisms of action of toxicants: physical and biological factors affecting transport, transformation and toxicity of chemical stressors: emphasis on forensic and environmental applications. Prerequisites: CHEM 351, BIOL 201, or consent of instructor.

CHEM 584 MODERN CHEMISTRY FOR TEACHERS: PRINCIPLES AND APPLICATIONS I (3)

A survey of principles and applications of chemistry for secondary school teachers. Lecture: chemical reactions, stoichiometry, atomic structure and theories of chemical bonding. Laboratory: an examination of experiments suitable for the secondary school curriculum with emphasis upon laboratory safety. Two lecture hours and two hours of laboratory-discussion. Prerequisites: High school algebra, experience as secondary school teacher and consent of instructor.

CHEM 585 PRINCIPLES OF CHEMISTRY (3)

A survey of principles and applications of chemistry for secondary school teachers. Lecture: properties of solutions, acid/base theories, reaction kinetics, chemical equilibrium, thermodynamics, state of matter and nuclear chemistry. Laboratory: an examination of experiments suitable for the secondary school curriculum with emphasis upon laboratory safety. Two lecture hours and two hours of laboratory-discussion. Prerequisites: CHEM 383 or CHEM 584 and consent of instructor.

CHEM 586 LABORATORY EXPERIMENT DESIGN (3)

Experimental chemistry for secondary school teachers: principles of laboratory measurements, obtaining and interpreting experimental data, laboratory techniques. Prerequisite: CHEM 585.

CHEM 587 PHYSICAL CHEMISTRY PRINCIPLES (3)

A survey of principles and applications of physical chemistry for secondary school teachers. Chemical thermodynamics, descriptions of solutions, kinetic theory of gases, reaction rates and mechanisms, and introduction to quantum mechanics. Three lecture hours. Prerequisites: CHEM 385 or CHEM 586 and consent of instructor.

CHEM 588 ORGANIC CHEMISTRY CONCEPTS (3)

Organic chemistry for secondary school teachers. Functional groups, reaction mechanisms, natural products. Simple and complex techniques of purification, analysis and synthesis. Three lecture hours and one

hour of laboratory. Prerequisites: CHEM 386 or CHEM 587 and consent of instructor.

CHEM 589 BIOCHEMISTRY PRINCIPLES (3)

Principles and applications of biochemistry for secondary school teachers. Structures and functions of biological molecules, enzymes, metabolic energies and nucleic acids. Three lecture hours. Prerequisites: CHEM 387 or CHEM 588 and consent of instructor.

CHEM 590 ANALYTICAL CHEMISTRY PRINCIPLES (3)

Modern instrumental methods for secondary school teachers. In integrated laboratory-lecture course discussing four major instrumental methods and their uses in solving typical chemical problems: spectrophotometry, nuclear magnetic resonance spectroscopy, mass spectrometry and chromatography. Two lecture hours and two hours of laboratory-discussion; short field trips may be required. Prerequisites: CHEM 388 or CHEM 589 and consent of instructor.

CHEM 601 BIOCHEMISTRY AND MOLECULAR BIOLOGY (3)

Protein and nucleic acid structure, enzyme catalysis, energetics of metabolism, transmission of genetic information, application in biotechnology and societal implications. Prerequisite: CHEM 588 or placement through competency exam.

CHEM 602 MEDICINAL CHEMISTRY (3)

A study of the chemistry of compounds from natural, semi-synthetic and synthetic sources used as medicinal agents. Physical and chemical properties associated with pharmacological activity. Introduction to medicinal agents derived from plants such as glycosides, volatile oils, and natural herbs will be included. Prerequisite: CHEM 588 or placement through competency exam.

CHEM 603 INORGANIC AND MATERIALS CHEMISTRY (3)

Treatment of modern concepts of bonding and structure in inorganic Chemistry with emphasis on applications to technologically important materials and their role in society. Prerequisite: CHEM 641.

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CHEM 610 APPLICATIONS OF ANALYTICAL CHEMISTRY (3) The application of chemical principle to the analysis of real-world substances using such techniques as selective chemical reactivity, light absorption, and chromatography. Prerequisite: CHEM 641

CHEM 641 PHYSICAL CHEMISTRY CONCEPTS (4) Chemical theory, experimental methods and solutions and phases reaction kinetics, applications of quantum mechanics, and instrumental techniques. Prerequisites: CHEM 585 or placement through competency exam, MATH 273 is strongly recommended.

CHEM 645 MOLECULAR SPECTROSCOPY (3) The coverage of this course will include quantum mechanical treatments of molecular spectroscopies. Practical examples of these spectroscopic techniques will include rotational spectroscopy and microwave heating, infrared spectroscopy and the green house effect, UV-visible spectroscopy and ozone depletion, NMR spectroscopy and magnetic resonance imaging, lasers and their use in medicine and industries. Prerequisite: CHEM 641.

CHEM 670 FORENSIC ANALYTICAL METHODS (3) Four integrated laboratory lecture hours; analytical instrumentation used for analysis of drugs, arson, explosives and trace evidence. Laboratory work includes sample preparation, handling, analysis and data interpretation for samples from simulated crime scenes. Use and conformity to standard protocols, quality assurance, and quality control methods, statistical methods for calibration and analysis of data. Prerequisites: MATH 5xx Biostatistics II and FRSC 650 Forensic Microscopy.

COMMUNICATION STUDIES (COMM)

COMM 518 COMMUNICATION TRAINING AND DEVELOPMENT (3) Instructional strategies for implementing objectives, specifying and evaluating results. Prerequisites: COMM 115 and COMM 216 or COMM 331.

COMM 519 ORGANIZATIONAL COMMUNICATION (3) Superior-subordinate communication, message dissemination, information overload, trust levels and work group interaction. Prerequisite: COMM 131.

COMM 522 CONFERENCE AND MEETING MANAGEMENT (3) Communicative details in preparing for and conducting events. Prerequisite: COMM 419/519 may be taken concurrently.

COMM 795 INDEPENDENT STUDY IN COMMUNICATION STUDIES (3) Directed study through readings, projects, papers or seminars. May be repeated for a maximum of 6 units. Prerequisites: 15 units of graduate-level communication or mass communication courses and consent of instructor.

COMPUTER SCIENCE (COSC)

COSC 501 FUNDAMENTALS OF DATA STRUCTURES AND ALGORITHM (6) This course is designed for graduate students to provide them with the necessary background in data structures and algorithm analysis. Topics include: objects and abstract data types, dynamic variables and pointers, recursion, sort and search algorithms, linear and non-linear structures such as linked lists, trees and graphs, hashing, algorithms time complexity analysis, object-oriented design and programming. Prerequisite: Admission to COSC M.S. program.

COSC 519 OPERATING SYSTEMS PRINCIPLES (3) An overview of the principles of operating systems. Topics include multiple processes, process synchronization and intercommunication, resource allocation, memory management, processor scheduling and I/O device management. Prerequisite: Computer Science graduate standing.

COSC 571 COMPUTER PERFORMANCE EVALUATION (3) Computer system performance evaluation methodologies, techniques and tools including different types of monitors as a measurement tool, workload character-

ization, important performance indices, analytic modeling with particular emphasis on the application of the operational queuing network modeling techniques to performance analysis and technical aspects of computer selection. Prerequisites: MATH 263 and COSC 439/519 as prerequisite or co-requisite.

COSC 578 DATABASE MANAGEMENT SYSTEMS I (3) Build theoretical foundation for database management systems, study different database models, relational algebra, relational calculus, SQL, ER, EER models, structured query formulations, database design, analysis and modeling, functional dependencies and normalization, and overview of next generation database management systems. Prerequisite: Computer Science graduate standing.

COSC 581 ARTIFICIAL INTELLIGENCE (3) A survey of the problems and techniques involved in producing or modeling intelligence in computers. Particular emphasis will be placed on representation of knowledge and basic paradigms of problem solving. Topics include game playing, theorem proving, natural language and learning systems. Prerequisite: Computer Science graduate standing.

COSC 583 DESIGN AND ANALYSIS OF ALGORITHMS (3) Algorithm design such as heuristics, backtrack programming, branch and bound, recursion, simulation and conquer, balancing and dynamic programming. Efficiency of algorithms-NP-complete problems. Prerequisite: COSC 501 or Computer Science graduate standing.

COSC 600 ADVANCED DATA STRUCTURES AND ALGORITHM ANALYSIS (3) Data abstraction, linear data structures, file organization and access methods, memory management, advanced internal and external sort and search algorithms and the trade-offs involved in the use of different data organization. Prerequisite: COSC 501 or computer science graduate standing.

COSC 602 COMPUTER VISION AND IMAGE PROCESSING (3) The study of image acquisition, representation and pattern recognition, edge detection for computer vision. Topics to be covered include digital image formats, image storage and display, bilevel image processing, measurable properties of objects, grey-level image processing, image classification and object recognition. Prerequisite: COSC 501 or Computer Science graduate standing.

COSC 605 HUMAN FACTORS AND HUMAN-COMPUTER INTERACTION (3) Design of information systems interfaces. Discussion of how information systems components and work environments can be constructed to make people more effective, productive and satisfied with their work life. Output and input design, arrangement of displays and controls, case studies in human factors. Prerequisite: TU graduate standing or consent of instructor.

COSC 609 SOFTWARE PROJECT MANAGEMENT (3) Factors necessary for the successful management of information systems development or enhancement projects. Both technical and behavioral aspects of project management are discussed. Topics include project management concepts, needs identification, the software project manager, software teams, software project organizations, project communications, software project planning, scheduling, control and associated costs. Project-management software tools will be an integral part of the course. Prerequisite: COSC 501 or equivalent, or consent of instructor.

COSC 611 COMPUTER SIMULATION (3) Continuous and discrete event systems simulation application, implementation, role of modeling and languages, experimental design, data collection, verification, validation, object-oriented simulation, random variable generation, Monte Carlo methods for performance evaluation, sensitivity analysis and optimization. Prerequisite: COSC 501 or Computer Science graduate standing.

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COSC 612 SOFTWARE ENGINEERING I (3) Formal software engineering principles and practices and their application to the development of computer-based systems. Prerequisite: COSC 600.

COSC 614 SOFTWARE ENGINEERING II (3) Formal process leading to requirements, design and test specifications, quantitative measures of useful software parameters, review of software systems components and complete design and test processes. Prerequisite: COSC 612.

COSC 617 ADVANCED WEB DEVELOPMENT (3) Design and implementation of distributed information systems involving the technologies developed for the World Wide Web. Emphasis will be given to server architectures, database connectivity and the enterprise packages provided by the Java programming language. Prerequisites: COSC 600 and COSC 457/578.

COSC 638 ADVANCED COMPUTER ARCHITECTURES (3) Design principles for multiprocessor and RISC machines, comparison between RISC and CISC architectures, multiprocessor interconnection networks, memory organizations, parallel algorithms for sorting, image processing, FFT and various applications, data flow computers and VLST computations. Prerequisite: COSC 280 or Computer Science graduate standing.

COSC 639 OPERATING SYSTEMS II (3) Implementation of operating systems for online multiprogramming environment. Primary and secondary storage management techniques, file security, data integrity and a detailed study of operating systems such as UNIX. Prerequisite: COSC 439/519 or equivalent.

COSC 641 FUNDAMENTALS OF E-COMMERCE (3) A broad overview and discussion of the technologies relevant to electronic commerce, including communication networks and the Internet, Web programming languages, computer security, electronic pay-

ments, multimedia databases and distributed transaction processing, and legal and ethical issues. Prerequisite: COSC 600 or equivalent.

COSC 643 INTERNET SUPPLY CHAIN MANAGEMENT (3) E-business strategies, Web-based system architecture, collaboration techniques among buyers and sellers, business-to-business system requirements analysis in the context of supply chain management. Focus on the technical aspects of supply chain management system, which include message passing framework, XML, DTD, XSL, XSLT, XPath, Web-based database manipulation, and VPN. Managerial aspects of e-business as well, which include the integration of e-business systems and back-end systems such as enterprise resource planning ERP systems and business security. Student will implement a B2B site as a team project. Prerequisite: COSC 600.

COSC 644 INTRODUCTION TO INFORMATION ASSURANCE (3) Principles, mechanisms and implementation of information assurance. Emphasis on human and technological aspects of information assurance and issues relevant to the risks in which information systems are exposed and methods of dealing with such risks. Not open to students who have taken IHSM 620. Prerequisite: COSC 600 or equivalent or consent of instructor.

COSC 645 APPLIED CRYPTOLOGY (3) A broad introduction to cryptography and its application to computer-network security services and mechanisms, such as confidentiality, digital signature, access control and electronic payments. Analysis of software implementations of cryptographic algorithms and network-security protocols. Prerequisite: COSC 600.

COSC 647 APPLICATION SOFTWARE SECURITY (3) Security concepts in developing software applications. This course discusses design principles for secure software development and some of the security issues in current programming and scripting languages, database systems and Web servers. Prerequisites: COSC 578 and COSC 600.

COSC 650 COMPUTER NETWORKS (3) Computer networking concepts and technologies. Architectures and protocols, LANs, Inter-networking, and applications. Prerequisite: COSC 501 or Computer Science graduate standing.

COSC 657 DATABASE MANAGEMENT SYSTEMS II (3) Relational database systems application, implementation, management, administration, design, advanced data modeling, object-oriented databases, deductive databases, query optimization, functional dependencies, concurrency, security and integrity. Prerequisite: COSC 457/578 or equivalent.

COSC 661 ARTIFICIAL INTELLIGENCE PROGRAMMING AND ADAPTIVE SYSTEMS (3) Major differences between AI and conventional programming, symbolic programming techniques and adaptive systems, PROLOG and LISP. Prerequisite: COSC 461/581 or Computer Science graduate standing.

COSC 665 EXPERT SYSTEM DESIGN AND DEVELOPMENT (3) Approaches and methods employed in expert system design and development analysis of selected expert systems, prototyping and presentation. Prerequisite: COSC 581 or equivalent.

COSC 670-679 SPECIAL TOPICS IN COMPUTER SCIENCE (3) Reading and study in selected topics in the field of computer science; emphasis is on an increased knowledge of computer science. A project or paper is required. Prerequisite: COSC 600 or equivalent and consent of instructor.

COSC 680 SEMINAR IN COMPUTER SCIENCE (1) Presentation and discussion of research trends and advanced topics in computer science. Students may enroll in this course up to three times for a total of 3 units. Prerequisite: Consent of instructor.

COSC 683 SECURITY AND INTERNET ALGORITHMS (3) State of the art trends in designing algorithms for the Internet and security. Typical topics include network routing,

Web search engine algorithms, data compression algorithms, caching, online algorithms, number theoretical algorithms relevant in cryptology, error-correcting codes, zero-knowledge protocols, secret-sharing protocols, one-way functions, pseudo-random generators. Prerequisite: COSC 600.

COSC 686 COMPUTER GRAPHICS (3) A presentation of the basic concepts in the field of computer and/or displayed graphics. The students will get an understanding of the basic mathematical and physical principles behind computer graphics and will learn a concrete programming package for computer graphics. Topics include animation, user interface, affine geometry and 3D transformations, lighting and shading, texture mapping, rendering algorithms, ray tracing and modeling. Prerequisite: COSC 501 or Computer Science graduate standing.

COSC 695 INDEPENDENT STUDY IN COMPUTER SCIENCE (3) Independent study in selected areas of computer science. Prerequisite: 9 units at the graduate or upper-division level.

COSC 714 FUZZY LOGIC IN CONTROL APPLICATIONS (3) Control theory and dynamical systems are first studied, followed by fuzzy sets, fuzzy memberships functions, fuzzy rules, fuzzy logic and use of neural nets to generate fuzzy rules. Two control applications are studied in department. Prerequisite: COSC 600 or equivalent.

COSC 715 ROBOTICS (3) Physical mechanisms of robotics, issues of modeling, planning control and programming. Principles underlying the design and analysis of robotic systems. Prerequisite: COSC 600 or equivalent.

COSC 716 OBJECT-ORIENTED METHODOLOGY (3) Object-oriented approach to modeling, problem solving, requirement analysis, system design, system implementation, database design, system engineering and software engineering. Prerequisite: COSC 600 or equivalent.

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COSC 720 COMPUTATIONAL COMPLEXITY (3) Computational complexity, time and storage cost of polynomial. Nonpolynomial (NP) and NP-complete problems, randomize computation, cryptography and approximability. Prerequisite: COSC 483/583 or Computer Science graduate standing.

COSC 725 PROCESS CONTROL AND REAL-TIME SYSTEMS (3) Analog to digital and digital to analog conversions, signal conditioning and processing, direct digital control of processes, adaptive control of nonlinear systems and real-time programming considerations: response time, survival time, recovery time, and throughput, executive-system calls, memory-related system calls, task-synchronization system calls, multiprocessing, interrupts, task scheduling and task concurrency. Prerequisite: Graduate standing or a course in computer architecture.

COSC 730 NETWORK MANAGEMENT SYSTEMS (3) Principles and practice of network management including architectures, protocols and tools.

COSC 732 WIRELESS NETWORKS AND MOBILE COMMUNICATIONS (3) The principles and practice of wireless networks and mobile communications. Wireless transmission and media access technologies, study of a typical cellular system, satellite networks, wireless LANs, mobile IP, mobility and TCP, and the wireless application protocol (WAP). Prerequisite: COSC 650.

COSC 734 NETWORK SECURITY (3) Principles and practice of network security. Topics include authentication services, e-mail security, IP security, Web security, security systems and threats, wireless security, and security applications. Prerequisites: COSC 645 and COSC 650.

COSC 740 PARALLEL COMPUTING (3) Parallel computing and its applications including parallel computer models, parallel matrix algorithms, optimization algorithms, complexity of parallel algorithms, parallel program-

ming environment, application of parallel algorithms in sorting, searching, matrix operations, system of linear equations and optimization. Prerequisites: COSC 600 or equivalent and a course in linear algebra.

COSC 741 E-COMMERCE CASE STUDIES (3) Key elements of e-commerce such as catalog, marketing, enterprise resource planning (ERP), Web-based database, network security, Internet supply chain, XML. Two or three e-business models will be analyzed and discussed in class. The analysis includes system structure and technology review, marketing strategy review, and is followed by presentations and discussions. Based on the e-commerce concepts studies, students will examine the advantages and the disadvantages of various e-commerce systems. The class can choose an e-commerce model (a B2B model) as a class project. The class project will be divided into several small group projects (buyers and sellers, B2B models) so that each group of students can take each piece. Each group will design and implement the part of e-business model of their choice and integrate with other group's project at the end of the term. Prerequisite: COSC 643.

COSC 745 ADVANCED TOPICS IN COMPUTER SECURITY (3) In-depth study of advanced topics in computer security. Topics will vary according to current trends and research directions in the field. Possible topics include: secure file and mail systems, operating system vulnerabilities, firewall and intrusion detection system design, denial of service attack issues, malicious code, virus detection and removal, router security, password attacks, Internet security mechanisms, spoofing, session hijacking, sniffers, scanners, logging and auditing techniques, and security in mobile environments. A project that requires security tools and software and a paper based on a research topic in computer security are required. Prerequisite: COSC 734.

COSC 750 NEURAL NETWORKS (3) Discussion of neural networks, architectures, algorithms and applications, including Heb-

bian, Hoffield and competitive learning. ART and Back propagation neural nets. Prerequisite: COSC 600 or equivalent.

COSC 757 DATA MINING (3) Designed to provide students with a broad background in data mining techniques and related topics. Real-world applications including Web mining will be emphasized. Current data mining tools will be used in student projects. Prerequisite: COSC 578 or equivalent.

COSC 880 GRADUATE PROJECT/INTERNSHIP IN COMPUTER SCIENCE (3) Enables students to conduct a study in an advanced computer-related topic or undertake the analysis, design and implementation of a real-world application. The application may be related to an industrial project sponsored by a company or it may be of mutual interest to the student and a supervising faculty member. Prerequisite: Completion of at least 18 graduate units toward M.S. in Computer Science.

COSC 885 PROJECT CONTINUATION (1) Continuation of graduate project. Prerequisite: Previous registration for project work.

COSC 897 GRADUATE THESIS (6) An original investigation using an acceptable research method and design. Prerequisite: Completion of at least 21 graduate units toward an M.S. degree in Computer Science.

COSC 898 THESIS (3) The previous course, COSC 897, taken over two consecutive terms.

COSC 899 THESIS CONTINUUM (1)

CRIMINAL JUSTICE (CRMJ)

CRMJ 553 THEORIES OF CRIME (3) Evolution of criminological theory; crime rates and trends; social profile of criminal offenders and victims; societal responses. Prerequisite: SOCI 101 Introduction to Sociology or CRMJ 2xx Introduction to Criminology.

CRMJ 555 DELINQUENCY AND JUVENILE JUSTICE (3) Nature, distribution and causes of youth crime; youth gangs, the juvenile justice system. Prerequisites: SOCI 101 Introduction to Sociology or CRMJ 254

CRMJ 556 PRISONS IN AMERICA (3) Purposes of punishment, incarceration and death penalty; inmate subculture; administration and staff issues. Prerequisite: CRMJ 254.

CRMJ 560-564 TOPICS IN CRIMINOLOGY (3) Current topics in criminology designed for non-majors as well as majors. May be repeated for a maximum of 6 units. Prerequisite: SOCI 101 Introduction to Sociology or CRMJ 254 Introduction to Criminology.

CRMJ 565-569 TOPICS IN CRIMINAL JUSTICE (3) Current topics in criminal justice designed for non-majors. May be repeated for a maximum of 6 units provided a different topic is covered. Prerequisite: CRMJ 254 Introduction to Criminal Justice.

CRMJ 570-574 SPECIAL TOPICS IN CRIMINOLOGY (3) An examination of current topics in criminology. May be repeated for a maximum of 6 units. Prerequisite: Consent of instructor.

CRMJ 575-579 SPECIAL TOPICS IN CRIMINAL JUSTICE (3) An examination of current topics in criminal justice. May be repeated for a maximum of 6 units. Prerequisite: Consent of instructor.

CRMJ 585 SEMINAR IN CRIMINAL JUSTICE (3) Capstone application of ideas, methods and facts learned in previous criminology and criminal justice courses. Prerequisites

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CRMJ 254 Introduction to Criminal Justice, CRMJ 2xx Introduction to Criminology, CRMJ or SOCI 353 Theories of Crime, CRMJ 368 or SOCI 391 Research Methods of consent of instructor.

CRMJ 591 INTERNSHIP IN CRIMINAL JUSTICE I (3) Supervised experience in work setting which facilitates understanding of roles and relationship relevant to inquiry in criminal justice and criminology and application of knowledge in field. Student may elect to take one term for 3 units (591) or two terms for 3 units each (591-592), in one agency both terms or in a different agency each term. No more than 3 units may be earned in a term without consent of the chair, which will be granted only when agency requirement and student needs make it appropriate. Prerequisites: SOAN majors only, CRMJ concentration and consent of instructor.

CRMJ 592 INTERNSHIP IN CRIMINAL JUSTICE II (3) Supervised experience in work setting which facilitates understanding of roles and relationship relevant to inquiry in criminal justice and criminology and application of knowledge in field. Student may elect to take one term for 3 units (591) or two terms for 3 units each (591-592), in one agency both terms or in a different agency each term. No more than 3 units may be earned in a term without consent of the chair, which will be granted only when agency requirement and student needs make it appropriate. Prerequisites: SOAN majors only, CRMJ concentration and consent of instructor.

CRMJ 595 INDEPENDENT RESEARCH (3) Supervised research in criminology and criminal justice involving library and/or field experiences, and culmination in a written report. Prerequisites: CRMJ or SOCI 353 Theories of Crime; CRMJ 368 or SOCI 391 Research Methods; and consent of instructor.

DANCE (DANC)

DANC 551 DANCE EDUCATION AND PUBLIC POLICIES (3) Examination of strategies for dance arts, advocacy and dance education policies in public schools. Prerequisite: DANC 251, dance majors only; by special permit.

DANC 570 SPECIAL TOPICS IN DANCE (3) Workshops and courses designed for study of special topics in dance, not available in other existing courses; for example, principles and practices of auditioning, dance repertory, seminar in dance education. Will be offered depending on student and faculty interest and availability. May be repeated for credit provided a different topic is covered. Prerequisites: Consent of department chair.

DEAF STUDIES (DFST)

DFST 509 INTRODUCTION TO DEAF-BLINDNESS (2) An orientation to the lives of people with both hearing and vision loss. Includes methods for communicating, techniques for guiding and information on assistive technology. Prerequisites: SPPA 205, 206 and 345/545.

EARLY CHILDHOOD EDUCATION (ECED)

ECED 603 TEACHER-LEARNER RELATIONSHIPS IN THE EARLY CHILDHOOD CLASSROOM (3) Theory, philosophy and research on teacher-learner relationships with emphasis on developing corresponding learning classroom environments and interaction between teacher and learner in the early childhood classroom.

ECED 604 MATH/SCIENCE IN THE EARLY CHILDHOOD EDUCATION PROGRAM (3) Theory, pedagogy and related research on developmentally appropriate practices in math and science for young children, with emphasis on a constructivist approach to learning.

ECED 605 THE ARTS AND YOUNG CHILDREN (3) This course explores the fundamental role of the arts in young children's lives and curricula, expands on teacher understanding of the arts for all individuals, provides references for lower no-cost materials, as well as concrete, practical strategies for fine arts learning design and implementation. The course identifies how the arts build interest, motivation and learning in all areas of the curriculum.

ECED 606 RESEARCH AND PRACTICE ON MULTIMEDIA TECHNOLOGY AND LEARNING (3) Research and practice on multimedia technology and early childhood education. Experience and evaluate resources for young children. Experiment and integrate technology in classrooms with young children, grades Pre-K to 3.

ECED 607 LEARNER DIVERSITY AND INCLUSION IN EARLY CHILDHOOD EDUCATION (3) Theory, pedagogy and related research on multiple aspects of learner diversity, with emphasis on developing appropriate culturally responsive and inclusive environments for young children.

ECED 608 INTEGRATED CURRICULUM AND AUTHENTIC LEARNING IN EARLY CHILDHOOD EDUCATION (3) An integrated approach to learning in preschool and primary programs, with emphasis on social studies, the arts and technology through the Project Approach and inspirations from Reggio Emilia. Based on an understanding of young children's growth and development, and on appropriate curriculum practices with strategies for meaningful learning within various curriculum systems and settings. Addresses the skills, knowledge and attitudes that children need in a diverse, democratic society. Prerequisite: Graduate standing or permission of instructor.

ECED 609 GROWTH AND DEVELOPMENT OF YOUNG CHILDREN (3) Current theory and research on the growth and development of young children, including both

typical and atypical development; methods of studying behavior; implications for early childhood programs. To be completed during the fall or spring term within the first 6 units of the program.

ECED 610 LEARNING ENVIRONMENTS: CURRICULUM AND TECHNOLOGY (3) Research and practice on school transformations and new educational directions as a result of evolving technologies. Examine how emerging technologies can support curriculum and create new learning environments that are developmentally appropriate for young children.

ECED 611 TEACHER AS RESEARCHER: RESEARCH METHODS IN EDUCATION (3) Development of skills, insights and understanding basic to planning and conducting research, with emphasis on interpretation and application of research results. Focus on research methods and literature applicable to early childhood education. To be completed during the fall or spring term within the first 6 units of the program.

ECED 612 CONFLICT RESOLUTION AND MANAGEMENT IN PROGRAMS FOR YOUNG CHILDREN (3) Examines the nature of young children's peer conflicts, the role of conflict in children's development and ways for practitioners and families to promote children's prosocial interaction, conflict resolution and early violence prevention. Also addresses adult conflict issues in early childhood settings.

ECED 613 PROGRAMS FOR INFANTS AND YOUNG CHILDREN (3) Research, theory and best practice relating to the development and care of young children from birth to age 3. Examines the design, implementation and evaluation of programs for infants and toddlers. Emphasis on the needs of young children and their families in diverse and inclusive settings.

ECED 615 ADMINISTRATION AND SUPERVISION OF EARLY CHILDHOOD PROGRAMS (3) Theory and practice of operating programs for young children; staff selection and mentoring, curriculum development,

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working with families, licensing and accreditation, budgeting, program and staff evaluation.

ECED 618 THINKING THROUGH THE PROCESSES AND ACQUISITION OF LITERACY (3) Literacy acquisition, birth through age 8, through study of learning theories based on brain research, cognition, language acquisition. Strategies for integrating reading and writing processes across the curriculum. Prerequisites: Bachelor's degree in ECE or related field, teaching experience or permission of instructor.

ECED 619 ASSESSMENT, OBSERVATION AND EVALUATION IN EARLY CHILDHOOD EDUCATION (3) Forms, functions and roles of assessment for planning and implementing effective programs for young children from diverse cultures and home languages and with varied learning needs. Qualitative and quantitative approaches to assessment and evaluation and methods of observing children. Appropriate strategies for conducting, reporting and decision-making related to various procedures and instruments.

ECED 621 ASSESSMENT OF READING AND WRITING IN EARLY CHILDHOOD EDUCATION (3) Assessment to guide instruction: assessment of primary-grade children's reading and writing. Purposes and types of assessment tools available for use in the classroom, types of information provided by assessment tools and appropriate use of the information including communicating results and formulating specific instructional recommendations to enhance each child's growth in reading and writing.

ECED 623 THE ART OF READING AND WRITING INSTRUCTION IN THE PRIMARY GRADES AND KINDERGARTEN (3) Reading and writing instruction with young children: development of comprehensive, effective programs, management of programs, evaluation of learning, use of strategies to develop comprehension, word skill and composition.

ECED 647 ADVANCED PROCESSES OF TEACHING AND LEARNING (3) Systems of analyzing teaching behavior; models of teaching for achieving cognitive, social and personal learning objectives; and analysis of classroom application of teaching models.

ECED 665 CURRICULUM THEORY AND DEVELOPMENT (3) History, theories, research and contemporary influences of curriculum development in early childhood education; objectives, content and evaluation; teachers as curriculum developers and implementers.

ECED 670-679 SPECIAL TOPICS IN EARLY CHILDHOOD EDUCATION (1-3) In-depth study of a selected topic in early childhood education. The specific requirements and prerequisites will vary with each topic and will be designated by the department each time there is a topic scheduled. Each topic may be taken as a separate course.

ECED 680 CELEBRATING THE ARTS WITH YOUNG CHILDREN: INTEGRATING THE ARTS IN CURRICULUM FOR YOUNG CHILDREN (6) Understanding and integration of the arts in teaching and learning will all young children. Experiences in music, dance, drama and visual arts, supported by computer technology, with focus on inclusion of children with special needs. Emphasis on developing creative and aesthetic expression. Exploring the potential of the arts in literacy learning and the value of the arts in diverse and inclusive settings. Prerequisite: Graduate standing or consent of the graduate program director.

ECED 694 INTERNSHIP IN EARLY CHILDHOOD EDUCATION PROGRAMS (3-6) Experience relating theory and practice in early childhood education programs. Prerequisites: Early Childhood Education graduate student standing and consent of the Early Childhood Education graduate program director.

ECED 695 INDEPENDENT STUDY IN EARLY CHILDHOOD EDUCATION (3)

Independent study in selected areas of early childhood education. Prerequisites: Early Childhood Education graduate student standing and consent of the Early Childhood Education graduate program director.

ECED 696 DIRECTED READINGS IN EARLY CHILDHOOD EDUCATION (3)

Independent readings in journals and professional books in selected areas of early childhood education. Prerequisites: Early Childhood Education graduate student standing and consent of the Early Childhood Education graduate program director.

ECED 750 PROGRAM DEVELOPMENT AND EVALUATION IN EARLY CHILDHOOD EDUCATION (3)

The design, development and evaluation of programs in education and human services, including early childhood education. Theory, paradigms and models; policy in the program development process; grant writing; Bronfenbrenner's notions of the ecology of human development in the design of programs; budgeting; program evaluation and use of technology in program development.

ECED 760 CRITICAL PERSPECTIVES IN ECED (3)

In depth consideration of guiding theories and critical perspectives in the field of early childhood education. Readings to include original work by Vygotsky, Bronfenbrenner, Piaget and others. Post-modern, feminist, post-colonial perspectives, activity and systems theories offer a critical examination of traditional theories in relation to current research and to the students' professional experiences. Prerequisites: No prerequisite courses. Open only to students in C.A.S. in Early Childhood Education or with permission of the program director.

ECED 762 LEADERSHIP AND ADVOCACY IN EARLY EDUCATION AND CARE (3)

Theory, research and practice in Early Childhood as a foundation for leadership in the field and advocacy on behalf of young children,

families, communities and the profession. An examination of current issues in the field and strategies for articulating positions and for working toward change. Leadership in teaching administration, policy-making and ethical decision-making. Prerequisite: Open only to students in C.A.S. in Early Childhood Education or to other graduate students with permission of the program director.

ECED 764 ETHICS AND SOCIAL JUSTICE IN EDUCATION AND RELATED HUMAN SERVICES (3)

An examination of the nature of ethics, social justice, and related critical social issues, addressing theoretical foundations and emphasis on implications for practice and advocacy among education and other professionals in early childhood education. Elementary education, secondary education, special education, and other educational specializations as well as for those in administration and in related human services settings. Prerequisite: Open only to students in C.A.S. in Early Childhood Education or to other graduate students with permission of the program director.

ECED 773 SEMINAR IN EARLY CHILDHOOD EDUCATION (3)

The final course for students enrolled in the graduate program in Early Childhood Education. Focus of seminar discussions is on issues and topics of importance in early childhood education. Exploration of theoretical, philosophical, historical and/or sociological foundations of topics. To be taken in the final term of the program.

ECED 794 TRAVEL/STUDY IN EARLY CHILDHOOD EDUCATION (1-6)

Study abroad of educational facilities, programs or practices, or selected projects on educational topics. By specific arrangement with the program director or chair and sponsoring instructors.

ECED 897 MASTER'S THESIS IN EARLY CHILDHOOD EDUCATION (6)

ECED 898 THESIS (3) The previous course, ECED 897, taken over two consecutive terms.

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ECED 899 THESIS CONTINUUM (1)

ECONOMICS (ECON)

Courses denoted by an asterisk are part of the UB/Towson MBA program only.

***ECON 504 ECONOMICS (3)** Introduction to economic theory and principles as they apply to business decisions at the microeconomic and macroeconomic levels. Prerequisite: graduate standing.

ECON 506 BUSINESS STATISTICS (3) Statistical analysis for MBA students. Basic statistical analysis, descriptive statistics, probability, theory, estimation, hypothesis testing, regression analysis, time series analysis, non-parametric statistics and the analysis of variance. Prerequisite: Graduate standing.

ECON 540 PERSONNEL ECONOMICS (3) Use of economics to solve practical personnel problems with specific issues in training, turnover, hiring and incentives. Fringe benefits, evaluation and legal constraints. Prerequisite: ECON 201.

ECON 541 LABOR ECONOMICS AND LABOR RELATIONS (3) The determination of wages. Labor unions: history, structure, activities and effects. Government labor policy. Prerequisites: ECON 201 and ECON 202.

ECON 574 ECONOMIC ISSUES OF GENDER (3) Explores the changing role of men and women in the United States and other economies with specific emphasis on issues such as differences in occupations and wages, theories of discrimination, the economics of the household, child care, divorce, poverty and the effect of government programs on families. Prerequisite: ECON 201.

ECON 585 SEMINAR ON ECONOMIC ISSUES (3) Research and writing of papers on an economic issue selected by the instructor. Prerequisites: ECON 309, ECON 313 and ECON 310.

ECON 593 WORKSHOP ON ECONOMIC EDUCATION (3) Designed to help teachers and school administrators gain a better understanding of the economic working of the society in which we live. Prerequisite: Consent of the instructor.

ECON 640 ECONOMICS, PUBLIC POLICY, AND CORPORATE SOCIAL RESPONSIBILITY (3) This course applies economic theories, concepts, and analytical tools to the issues of public policy, corporate social responsibility, ethics, and sustainability. Applications focus on need for and means of providing environmental protection, healthcare, education, and regulation of marketplace behavior. Prerequisite: ECON 504.

ECON 650 BUSINESS ECONOMICS AND FORECASTING (3) Basic and advanced skills of applied regression methodology, optimization and strategy. Statistical and analytical techniques are applied across traditional business disciplines to develop the technical competence necessary for managers in today's competitive global business environment. Prerequisite: ECON 504, OPRE 504 or equivalent.

ECON 670 SPORTS ECONOMICS (3) Study of sports and the sports industry using economic models. Loosely organized according to the fields of industrial organization, public finance and labor economics to allow for an investigation of many of the issues that regularly come up in sports. Topics include league makeup, stadium financing, team locations, competitive balance and incentive structures. Prerequisite: ECON 504 or equivalent.

ECON 690 INDEPENDENT STUDY (1-3) Individual and supervised study in selected areas of economics. Prerequisite: Permission of instructor.

ECON 693 ECONOMIC EDUCATION RESEARCH AND METHODS (3) Methodology and research in contemporary economic education in the elementary and secondary schools. A contemporary issues approach to

economic instruction is employed. Prerequisites: ECON 301, ECON 309, ECON 323 and ECON 335.

ECON 695 SEMINAR IN ECONOMICS (3) Research and writing of papers on an economic issue selected by the instructor. Prerequisites: ECON 309, ECON 323 and ECON 335.

ECON 697 INTERNSHIP IN ECONOMICS (3) Supervised work experience designed to provide an understanding of the economic system and the practical applications of economic principles. Prerequisite: Consent of internship coordinator.

***ECON 720 INTERNATIONAL ECONOMICS AND FINANCE (3)** The framework of international economics and finance. Topics covered include classical trade theory, balance of payment, models of open economy, export and import economic policies and trade performance, foreign exchange markets, currency options and futures markets, international money markets and capital markets. Specific application will be made to European, Asian and Latin American markets. Prerequisite: ECON 504.

***ECON 765 THE HEALTH SERVICES SYSTEMS (3)** An overview of the U.S. health care system, including health care as a product and the role of all stakeholders: patients, physicians, staff, hospitals, insurers, employers and governments. Topics include: the impact of cost containment and competition on management within hospitals and on physician-hospital relations; alternate delivery systems (HMOs and PPOs); multiunit systems; what makes health care different from standard economic markets; health care marketing; health insurance, including uninsured/uncompensated care and poorly informed but heavily insured customers; a larger not-for-profit sector and heavy government involvement; and legal aspects of health care, including social, moral and ethical issues. Prerequisite: ECON 504 or equivalent.

***ECON 797 SPECIAL TOPICS IN ECONOMIC MANAGEMENT (3)** Specialized topics in economics allowing flexibility for both the changing developments in business and the educational needs of students. Topic areas may include econometrics, entrepreneurship or organizational architecture. Exact listing of topics and prerequisites may be listed in schedule of classes. Prerequisite: ECON 504 or department approval.

***ECON 799 INDIVIDUAL RESEARCH (1-3)** Individual research in an area of interest to the student. The expectation is that work equivalent to a regular graduate course will be completed. Formal paper(s) will be written under the supervision of a full-time faculty member. Prerequisite: approval by Economics faculty member and chair of Division of Economics, Finance and Management Science.

GENERAL EDUCATION (EDUC)

EDUC 506 RECENT TRENDS IN TEACHING (3) Recent teaching strategies, organizational patterns and curricular innovations for levels K-12 are examined. Students may pursue individualized projects. Prerequisite: Student teaching or senior standing with consent of instructor.

EDUC 507 CONTEMPORARY ISSUES IN EDUCATION (3) Seminar approach to current issues in education. Prerequisite: Student teaching or senior standing with consent of instructor (no prerequisite when offered during the day).

EDUC 517 CHILDREN'S LITERATURE AND OTHER MATERIALS FOR READING AND LANGUAGE ARTS IN ELEMENTARY SCHOOL (3) Study of literature, texts and technology of reading and language arts instruction. Attention to authors, illustrators, awards and criteria for selection and importance in curricula. Prerequisite: Two English courses.

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EDUC 553 SUPERVISORY PRACTICES IN TEACHER EDUCATION (3) Experiences and study in developing particular skills and competencies for supervising quality laboratory/field experiences. Content is designed for supervising teachers, team leaders and resource personnel. Prerequisite: Teaching experience. Graduates count this as a workshop elective.

EDUC 570-579 SPECIAL TOPICS IN EDUCATION (1-3) In-depth study of a selected topic in education. The specific requirements and prerequisite will vary with each topic and will be designated by the department each time there is a topic scheduled. Graduate credit only with approval of the graduate program director. Each topic may be taken as a separate course.

EDUC 594 TRAVEL AND STUDY EDUCATION (1-6) Study abroad of educational facilities, programs or practices or selected projects in educational topics. By specific arrangement with program chair and sponsoring instructors. Consent of graduate program director required for graduate degree credit.

EDUC 595 INDEPENDENT STUDY IN EDUCATION (1-4) An opportunity for specially qualified students to undertake research problems or study projects relevant to their interest and training under the direction of a staff member. Prerequisite: Approval of appropriate program chair. Graduate credit by consent of graduate program director only.

EDUC 596 DIRECTED READINGS IN EDUCATION (1-4) Independent readings in selected areas of education, in order to provide a comprehensive coverage for the individual or to meet special needs. By invitation of the department to major students. Prerequisite: Approval of appropriate program chair. Graduate credit by consent of graduate program director only.

EDUC 601 CONCEPTS AND ISSUES IN EDUCATION (3) Social, economic, historical, political and technological trends that shape educational policy and programs. Prerequisite: Graduate standing.

EDUC 605 RESEARCH AND INFORMATION TECHNOLOGY (3) Use of database networks for information retrieval, computer hardware and software application programs appropriate for research and curriculum planning, introduction to distance learning, and interactive technologies and resource-based learning. Prerequisite: Teaching experience or completion of student teaching.

EDUC 611 SUPERVISION OF STUDENT TEACHING (3) An analysis of the roles of the cooperating teacher, college supervisor and student teacher; current practices, issues, problems, trends and evaluation in laboratory experiences and current research. Prerequisite: Teaching experience.

EDUC 614 ASSESSMENT AND EVALUATION IN EDUCATION (3) Current trends and techniques in assessment and evaluation. Classroom assessment: development and interpretation of classroom tests, performance criteria and student portfolios. Classroom evaluation: formative, summative and portfolio evaluation.

EDUC 615 APPLIED EDUCATIONAL STATISTICS (4) Educational statistics used in fundamental quantitative research designs. Includes descriptive and inferential through ANOVA. Required laboratory includes current statistical applications software. Prerequisite: Consent of the instructor.

EDUC 632 INSTRUCTION AND ASSESSMENT FOR ENGLISH LANGUAGE (3) Critically examines approaches to second language development and assessment for children and adolescents congruent with recent research in second language acquisition. Application of strategies for implementing sound theoretical practice within the classroom, and appropriate instruction based on informal and formal assessment results for K-12 English Language Learners will be the major focus. Prerequisites: None.

EDUC 645 THEORIES IN EDUCATIONAL ADMINISTRATION (3) Theoretical bases

for educational administration. Prerequisites: Teaching experience and teacher certification.

EDUC 646 HUMAN RELATIONS AND THE PROFESSIONAL (3) Professional behavior in organizational work place, emphasizing leadership and communication. Prerequisite: Teaching experience or certification.

EDUC/REED 650 SECOND LANGUAGE LITERACY (3) Foundations of second language literacy acquisition and learning, instructional practices used for differentiation and inclusion, relationships between language arts teacher/reading specialists and ESL specialists, models of literacy instruction found in English as Second Language, Bilingual, Dual Immersion and content area-focused settings.

EDUC/REED 651 INSTRUCTION AND ASSESSMENT FOR SECOND LANGUAGE LEARNERS (3) Students will be invited to critically examine approaches to second language development and assessment for children congruent with recent research in second language acquisition in children. Class members will read professional literature framing second language acquisition and discuss strategies for implementing sound theoretical practice within the classroom. How to provide appropriate instruction based on informal and formal assessment results for K-12 English Language Learners will be the major focus of this course.

EDUC 660 TEACHING IN A MULTICULTURAL SOCIETY (3) Past and current trends in multicultural education, underlying theories and relationship to teaching in culturally diverse classrooms. Nature of bias and impact on learning environments. Evaluation and development of culturally relevant curriculum and instruction. Prerequisite: Graduate standing

EDUC 661 RESPONDING TO AND EVALUATING WRITING (3) Direct assessment using holistic, analytic, primary trait and t-unit analysis; indirect assessment of grammar, punctuation and usage, in-process response

techniques. Prerequisite: SCED 603, SCED 605 or SCED 558 or consent of graduate program director.

EDUC 667 WRITING AS THINKING (3) Research on the writing-thinking connection; self analysis of thought processes used while writing; analysis of classroom methods for teaching writing and thinking. Prerequisite: SCED 603, SCED 605 or SCED 558 or consent of instructor.

EDUC 670-674 SPECIAL TOPICS IN EDUCATION (1-6) In-depth study of a selected topic in education. The specific requirements and prerequisites will vary with each topic and will be designated by the department each time a topic is scheduled. Approval by the appropriate graduate program director is required. Each topic may be taken as a separate course. Prerequisite: Varies with each topic.

EDUC 695 INDIVIDUALIZED STUDY (3-6) Individually planned programs which will permit the student to engage in research and/or field experiences relative to the student's professional growth. Admission by application to the graduate program director only.

EDUC 715 STATISTICAL PRINCIPLES OF RESEARCH DESIGN AND ANALYSIS (3) This is an intermediate-level statistics course focusing on the statistical principles and research design in the field of education. Course content covers from the single factor through higher-order factorial experiments design, as well as multiple regression modeling. Advanced skills of statistical analysis, calculation and uses of contemporary statistics software will be developed.

EDUC 717 CHILDREN'S LITERATURE AND OTHER MATERIALS FOR TEACHING READING (3) An in-depth examination of a variety of texts for teaching reading, with particular emphasis on children's literature and reading software; strategies for selecting and evaluating texts. Review of current research. Prerequisite: Admission to M.A.T. program or consent of the graduate program director.

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EDUC 730 PRINCIPLES OF LEARNING, DEVELOPMENT AND DIVERSITY (3) Participants examine current theories and research on the nature of learning and the corresponding role of development and culture in the teaching-learning process. A framework for effective teaching that is based upon an understanding of best practices will be established. Prerequisite: Admission to the M.A.T. program.

EDUC 731 CURRICULUM AND ASSESSMENT (3) Students will examine the foundations of school curriculum and explore linkages between assessment-based curriculum and instructional strategies. This course will examine actual school practices, the teacher's role in curriculum development and the role of assessment in curriculum development. Students will formulate their own theories and views related to current trends, innovations and issues in curriculum and assessment. Prerequisite: Admission to the M.A.T. program.

EDUC 734 THE TEACHER AS RESEARCHER (3) Theory and methodology for conducting classroom research with an emphasis on descriptive research approaches. Prerequisite: Consent of program coordinator. Must be completed concurrently with Internship I in the term prior to Internship II.

EDUC 735 PROSEMINAR: PROBLEMS AND ISSUES (3) Problems and issues that impact teachers and the education process. Prerequisite: Admission to the M.A.T. program. Completed concurrently with student teaching.

EDUC 761 RESEARCH IN EDUCATION (3) Theory and methodology of educational research. Prerequisite: EDUC 605.

EDUC 762 INTRODUCTION TO EDUCATIONAL EVALUATION (3) Theory and methodology of education evaluation for systematic appraisal of process, program, staff or institution. Prerequisite: A course in statistics or tests and measurements.

EDUC 765 QUALITATIVE METHODS IN EDUCATION (3) Qualitative research traditions, methods, theoretical and philosophical perspectives in education are included. Methods of conducting fieldwork, data collection and analysis required for original qualitative research studies are examined from an educational perspective. Prerequisite: None

EDUC 770-774 SPECIAL TOPICS IN EDUCATION (1-3) In-depth study of a selected topic in education. The specific requirements and prerequisites will vary with each topic and will be designated by the department each time a topic is scheduled. Approval by the appropriate graduate program director is required. Each topic may be taken as a separate course.

EDUC 776 INTERMEDIATE STATISTICS IN EDUCATIONAL RESEARCH (3) This is an intermediate course in educational research and statistics focusing on the selection and use of statistical analysis appropriate for quantitative research designs. An overview of experimental design and controls to threats to internal and external threats to validity forms the vantage point from which statistical analyses are examined. Prerequisite: EDUC 615.

EDUC 787 INSTRUCTIONAL PRACTICES IN THE DEVELOPMENT OF LITERACY (3) An internship with a mentor teacher providing an opportunity for an M.A.T. candidate to focus on understanding and demonstrating a balanced approach to teaching reading. The intern will develop a reading portfolio to complete the knowledge and performance expectations of the experience. Completed concurrently with EDUC 797.

EDUC 790 ADVANCED MEASUREMENTS AND STATISTICS IN EDUCATION (3) An advanced statistics course for doctoral students focusing on using multivariate statistics in educational research designs. Course covers statistical analyses ranging from multiple regressions, canonical correlation through multivariate analysis of variance and covariance, as well as discriminate function analysis. Advanced skills of experimental and nonex-

perimental designs, and uses of contemporary statistics software will be developed. Prerequisites: EDUC615 or EDUC715 or EDUC776.

EDUC 797 INTERNSHIP I/SEMINAR (3-6) Best practices for creating and maintaining a positive and productive learning environment will be explored. Participants analyze a variety of learner characteristics that influence student development and academic achievement, including gender, ethnicity, physiology, values, family, and geographic regions, as appropriate for age/grade level and professional specialization. Taken concurrently with EDUC 734 in the term prior to Internship II. Participants complete extended field experience (as determined by appropriate program director). Prerequisite: Consent of graduate program director, who may require other prerequisites.

EDUC 798 INTERNSHIP II WITH SEMINAR (6) Supervised teaching experience at the appropriate school level for students in M.A.T. program. Seminar will provide participants with theory-practice connections. Prerequisite: Approval of early childhood education, elementary education or secondary education departments and the graduate program director.

EDUC 897 MASTER OF EDUCATION THESIS (6) Investigation of selected topics in education.

EDUC 898 THESIS (3) The previous course, EDUC 897, taken over two consecutive terms.

EDUC 899 THESIS CONTINUUM (1)

ELEMENTARY EDUCATION (ELED)

ELED 557 ENGLISH FOR THE NON-ENGLISH SPEAKING CHILD (3) Methods of teaching English to elementary school children whose native tongue is another language. Prerequisite: Elementary language-arts methods course or elementary teaching experiences or consent of instructor.

ELED 594 TRAVEL AND STUDY: ELEMENTARY EDUCATION (1-6) Study abroad for educational facilities, programs or practices or selected projects in elementary education topics. By special arrangement with program chair and sponsoring instructors. Consent of graduate program director required for graduate degree credit; may be repeated for a maximum of 6 units.

ELED 601 CRITICAL AND CREATIVE THINKING (3) Past and current research and practices in the development of creative and critical thinking potential in children and adults. Examination of cognitive, psychological, and cultural influences and thinking processes; analysis and evaluation of models for differentiated instruction to promote higher level thinking; application and evaluation of various approaches to enhance critical and creative thinking in classroom setting and in personal endeavors. Prerequisite: None

ELED 611 PRINCIPLES AND PROCESSES OF LANGUAGE AND LITERACY (3) Study of the theoretical foundations of reading and language arts in an elementary school setting. Exploration of theories and research perspectives on language and literacy development, the nature of reading and writing processes and factors influencing the acquisition of literacy.

ELED 613 READING AND OTHER LANGUAGE ARTS IN THE ELEMENTARY SCHOOL (3) Application of principles and processes of language and literacy development to reading and language arts instruction. Examination of instructional models, approaches and strategies for supporting literacy development in diverse classroom settings. Prerequisite: One course in reading instruction.

ELED 621 LITERACY ASSESSMENT IN THE ELEMENTARY CLASSROOM (3) Examination of theories and principle of classroom literacy assessment. Practice using a range of formal and informal techniques for assessing reading and writing, and using assess-

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ment data to plan instruction. Prerequisites: ELED 611.

ELED 631 INTRODUCTION TO EDUCATING GIFTED STUDENTS (3) An introductory course that surveys the history of gifted education, characteristics, and educational needs of gifted children; identification issues, procedures for diverse populations of gifted and talented; current trends in identifications of gifted students at the national, state, local levels; overview of curricular and program for the gifted. Prerequisites: Teaching experience or consent of instructor.

ELED 640 DISCIPLINE AND MANAGEMENT IN THE ELEMENTARY SCHOOL (3) Classroom discipline in the elementary school and development of ways and means of implementing appropriate classroom management techniques. Prerequisite: Student teaching, teaching experience or consent of instructor.

ELED 647 ADVANCED PROCESSES OF TEACHING AND LEARNING (3) Systems for analyzing teaching behavior, models of teaching for achieving cognitive, social and personal learning objectives; and analysis of classroom application of teaching models. Prerequisite: Teaching experience (students enrolling for this class should be teaching).

ELED 648 DIFFERENTIATING INSTRUCTION FOR ALL LEARNERS (3) Current research and practices for development and modification of curriculum and instruction to address learning characteristics of students in the heterogeneous classroom, especially diverse populations of gifted and talented students; approaches for modification of basic curriculum; alternative models for differentiating curriculum and instruction; classroom management, resources for gifted students in the regular classroom. Prerequisite: Teaching experience.

ELED 665 CURRICULUM THEORY AND DEVELOPMENT (3) History of curriculum development in the elementary school: basic

considerations affecting curriculum development, patterns of organization, objectives, practices and evaluation and problems in curriculum development. Prerequisite: Certification and teaching experience or consent of instructor.

ELED 670-674 SPECIAL TOPICS IN ELEMENTARY EDUCATION (1-3) Study of a topic in elementary education. Requirements and prerequisites vary with each topic.

ELED 685 SEMINAR IN ELEMENTARY SCHOOL SOCIAL STUDIES (3) Trends, content, issues and materials involved in the teaching of social studies. Students explore one aspect of the subject and present findings.

ELED 695 INDEPENDENT STUDY IN EDUCATION: ELEMENTARY (1-4) Research problems or study projects relevant to student interest and training. Prerequisite: Consent of the graduate program director prior to registration.

ELED 712 CRITICAL CONVERSATION: EARLY LITERACY RESEARCH, POLICY AND PRACTICE (3) Critically examines current policies, research and instructional trend in early literacy instruction. Engage in personal and collaborative inquiry into important issues affecting all elementary teachers and reading professionals. Examine current professional literature, early literacy research, and key public policy documents representing a range of contrasting perspectives in the field. Prerequisite: Admission to a graduate program in education.

ELED 770-774 SPECIAL TOPICS IN ELEMENTARY EDUCATION (1-3) Study of a selected topic in education. Requirements and prerequisites vary according to topic. Prerequisite: Consent of graduate program director.

ELED 775 INTEGRATED PROFESSIONAL PRACTICE SEMINAR (3) Trends, issues, problems in education. Integrative investigations through quantitative/qualitative research, curriculum and instruction development, or

policy and program development for selected aspects of elementary education. Prerequisites: 27 units of graduate work, EDUC 761 and permission of adviser.

ELED 897 MASTER'S THESIS IN ELEMENTARY EDUCATION (6)

ELED 898 THESIS (3) The previous course, ELED 897, taken over two consecutive terms.

ELED 899 THESIS CONTINUUM (1)

ELECTRONIC MEDIA AND FILM (EMF)

EMF 530 THE MEDIA PRODUCER (3) Management and administration of film and video projects. Prerequisite: MCOM 267, MCOM 271 or MCOM 273.

EMF 573 FILM III: ADVANCED 16MM TECHNIQUES (3) Seminar in professional filmmaking techniques leading to the completion of an original narrative film. Prerequisite: EMF 367.

EMF 575 FILM ANALYSIS (3) Style of a director, studio or filmmaking method in terms of thematic and formal properties and their influences upon the art of film. Prerequisite: EMF 221.

EMF 587 SEMINAR IN DIGITAL POST-PRODUCTION (3) Professional nonlinear editing skills and techniques including audio and multimedia applications. Prerequisite: EMF 275.

ENGLISH (ENGL)

ENGL 501 HISTORICAL LINGUISTICS (3) Introduction to language typology and Indo-European philology; historical development of linguistics up to the 20th century. Prerequisites: Two English courses (not open to students who have completed ENGL 351).

ENGL 503 HISTORY OF AMERICAN ENGLISH (3) Origins and history of American dialects; development of elements of vocabulary, sounds and grammar which distinguish American English; standards of American English. Prerequisites: Two English courses (not open to students who have completed ENGL 353).

ENGL 511 MEDIEVAL BRITISH LITERATURE (3) Emphasis on the mystical writers, Piers Plowman, the Gawain-poet and Arthurian literature. Prerequisites: Two English courses (not open to students who have completed ENGL 321).

ENGL 512 BRITISH MEDIEVAL AND RENAISSANCE DRAMA (3) Development of the drama, excluding Shakespeare, with emphasis on plays by Marlowe, Kyd, Jonson, Ford and Webster. Prerequisites: Two English courses (not open to students who have completed ENGL 322).

ENGL 514 BRITISH LITERATURE OF THE LATER RENAISSANCE (3) Major intellectual and literary currents of 1600-1660 in the poetry of Donne, Herbert, Marvell, Jonson and Milton, and the prose of Bacon, Brownie, Burton and Hobbes. Prerequisites: Two English courses (not open to students who have completed ENGL 324).

ENGL 515 18TH-CENTURY BRITISH LITERATURE (3) Social and intellectual backgrounds, literary trends and significant authors, such as Swift, Pope, Fielding, Johnson and Boswell, with emphasis on satire. Prerequisites: Two English courses (not open to students who have completed ENGL 325).

ENGL 516 LITERATURE OF THE BRITISH ROMANTIC PERIOD (3) Major writers such as Blake, Wordsworth, Coleridge, Byron, Shelley and Keats, from 1790 to 1830 with emphasis on the philosophic and social backgrounds. Prerequisites: Two English courses (not open to students who have completed ENGL 326).

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ENGL 517 AMERICAN DRAMA (3) American drama from the Colonial period to the present, with emphasis on 20th-century plays by O'Neill, Williams, Miller, Bullins and Wilder. Prerequisites: Two English courses (not open to students who have completed ENGL 331).

ENGL 518 HISTORY AND LITERATURE OF THE OLD TESTAMENT (3) The chief books of the Old Testament and the Apocrypha studied from a literary and historical point of view. Prerequisites: Two English courses (not open to students who have completed ENGL 341).

ENGL 519 FOLKLORE AND LITERATURE (3) How and why literary artists draw plots, characters, themes and style from ancient folk tradition: the anonymous oral narratives, songs, jests and proverbs that circulate in all cultures. Focus on universal folkloric material in such works as the Bible, Aesop's Fables, the Arabian Nights, Peer Gynt and Harvest Home. Prerequisites: Two English courses (not open to students who have completed ENGL 342).

ENGL 520 DEVELOPMENT OF THE BRITISH NOVEL: 17TH CENTURY (3) Georgian fiction and its social background, especially works by Defoe, Richardson, Fielding, Smollett, Steme and Austen. Prerequisites: Two English courses (not open to students who have completed ENGL 420).

ENGL 521 DEVELOPMENT OF THE BRITISH NOVEL: 19TH CENTURY (3) Mainly Victorian fiction and its social background, especially works by Scott, the Brontes, Thackeray, Dickens, Eliot and Hardy. Prerequisites: Two English courses (not open to students who have completed ENGL 421).

ENGL 522 DEVELOPMENT OF THE BRITISH NOVEL: 20TH CENTURY (3) Modern fiction and its social background, especially works by Joyce, Lawrence, Woolf, Forster, Waugh and Greene. Prerequisites: Two English courses (not open to students who have completed ENGL 422).

ENGL 523 MODERN BRITISH POETRY (3) Emphasis on Hopkins, Hardy, Yeats, Auden, Spender, Sitwell, Thomas and Larkin. Prerequisites: Two English courses (not open to students who have completed ENGL 423).

ENGL 525 CHAUCER (3) Major poems, especially The Canterbury Tales and Troilus and Cressida. Prerequisites: Two English courses (not open to students who have completed ENGL 425).

ENGL 526 TOPICS IN SHAKESPEARE STUDIES (3) Topics and issues related to Shakespeare, his times, his contemporaries, his reception and performance history. Content varies. May be repeated for a maximum of 6 units. Prerequisites: Two English courses.

ENGL 527 SHAKESPEAREAN COMEDY (3) Shakespeare's development as a poet and dramatist in the comedies and romances. Prerequisites: Two English courses (not open to students who have completed ENGL 427).

ENGL 528 SHAKESPEAREAN TRAGEDY (3) Shakespeare's development as a poet and dramatist in the histories and tragedies. Prerequisites: Two English courses (not open to students who have completed ENGL 428).

ENGL 529 MILTON AND THE HUMANIST TRADITION (3) Major poetry and prose with emphasis on Milton's place in the humanist tradition. Prerequisites: Two English courses (not open to students who have completed ENGL 429).

ENGL 531 LITERATURE OF THE AMERICAN ROMANTIC PERIOD (3) Social and political backgrounds, 1819-1860, important literary ideas, criticism and major authors, such as Irving, Cooper, Emerson, Thoreau, Hawthorne, Melville and Poe. Prerequisites: Two English courses (not open to students who have completed ENGL 431).

ENGL 532 LITERATURE OF THE AMERICAN REALISTIC PERIOD (3) Major writers, such as Dickinson, Twain, Crane and James;

important secondary writers; social and political backgrounds; important literary ideas and criticism, 1860-1914. Prerequisites: Two English courses (not open to students who have completed ENGL 432).

ENGL 533 AMERICAN SHORT STORY (3) Authors and schools, such as Irving, Hawthorne, Poe, Hemingway, Welty, Wright, Porter, local color writers, realists and naturalists. Prerequisites: Two English courses (not open to students who have completed ENGL 433).

ENGL 535 DEVELOPMENT OF THE AMERICAN NOVEL: 19TH CENTURY (3) Major novelists, such as Cooper, Melville, Hawthorne, Twain, Howells, James and Crane. Prerequisites: Two English courses (not open to students who have completed ENGL 435).

ENGL 536 DEVELOPMENT OF THE AMERICAN NOVEL: 20TH CENTURY (3) Major novelists, such as Fitzgerald, Hemingway and Faulkner. Prerequisites: Two English courses (not open to students who have completed ENGL 436).

ENGL 537 AMERICAN POETRY THROUGH FROST (3) Puritan beginnings through the early 20th century, with emphasis on Emerson, Poe, Whitman, Dickinson and Frost. Prerequisites: Two English courses (not open to students who have completed ENGL 437).

ENGL 538 MODERN AMERICAN POETRY (3) Poetic movements from the 1920s to the 1980s, and major poets, such as Eliot, Stevens, Williams, Lowell, Plath and Rich. Prerequisites: Two English courses (not open to students who have completed ENGL 438).

ENGL 541 MODERN FICTION TO WORLD WAR II (3) Works of the modern masters of fiction, with emphasis on Proust, Mann and Joyce. Prerequisites: Two English courses (not open to students who have completed ENGL 441).

ENGL 542 MODERN FICTION SINCE WORLD WAR II (3) Works of the significant writers—English, American and Continental—of the past 30 years, including such figures as Grass, Robbe-Grillet, Solzhenitsyn and Burgess. Prerequisites: Two English courses (not open to students who have completed ENGL 442).

ENGL 543 MYTH AND LITERATURE (3) Literary reinterpretations of themes and figures from Greek and Roman mythology. Prerequisites: Two English courses (not open to students who have completed ENGL 343).

ENGL 547 WORLD LITERATURE WRITTEN IN ENGLISH (3) Literature originally published in English from Africa, India, Australia, New Zealand, Canada and the West Indies. Mainly 20th-century fiction including fiction, poetry and drama. Prerequisites: Two English courses.

ENGL 550 COMPARATIVE GRAMMAR (3) Study of English grammar: traditional, structural and transformational. Prerequisites: Two English courses (not open to students who have completed ENGL 350).

ENGL 551 HISTORY OF THE ENGLISH LANGUAGE (3) Changes and reasons for the changes in grammar, sound and vocabulary of the language from Old English to modern times. Prerequisites: Two English courses (not open to students who have completed ENGL 451).

ENGL 552 STRUCTURE OF THE ENGLISH LANGUAGE (3) A linguistic approach to sounds, forms, syntax and usage. Prerequisites: Two English courses (not open to students who have completed ENGL 452).

ENGL 561 HISTORY OF LITERARY CRITICISM (3) Major statements in literary theory from Aristotle to the present, including Horace, Sidney, Johnson, Coleridge, Eliot and Frye. Prerequisites: Two English courses (not open to students who have completed ENGL 461).

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ENGL 565 BRITISH AND AMERICAN PROSE (3) Nonfictional prose, with emphasis on form and style. Prerequisites: Two English courses (not open to students who have completed ENGL 465).

ENGL 571 TOPICS IN WORLD LITERATURE (3) Authors, periods, genres or conventions. Variation in content from year to year; may be re-elected once. Prerequisites: Two English courses.

ENGL 572 TOPICS IN BRITISH LITERATURE (3) Authors, periods, genres or conventions. Variation in content; may be re-elected once. Prerequisites: Two English courses.

ENGL 573 TOPICS IN AMERICAN LITERATURE (3) Authors, periods, genres or conventions; variation in content. Prerequisites: Two English courses.

ENGL 575 TOPICS IN LINGUISTICS (3) Topics and issues in contemporary linguistics theory, with particular attention to recent interdisciplinary subspecialty developments: psycholinguistics, sociolinguistics, pedagogic linguistics, etc. Topics to vary. Prerequisite: One linguistics course or consent of the instructor. May be re-elected once (not open to students who have completed ENGL 475).

ENGL 576 TOPICS IN MULTIETHNIC AMERICAN LITERATURE (3) Possible topics include women in ethnic literature, Jewish writers and the Catholic novel. Variation in content; may be re-elected once. Prerequisites: Two English courses (not open to students who have completed ENGL 476).

ENGL 577 TOPICS IN BLACK AMERICAN LITERATURE (3) Authors, periods, genres, or conventions. Content varies. May be repeated for a maximum of 6 units.

ENGL 580 VOICES OF MEDIEVAL WOMEN (3) Examines the voices assumed by and assigned to women in European literature of the 10th to 15th centuries. Emphasis on medieval women authors, including Hrotsvit

von Gandersheim, Hildegard von Bingen, Heloise, Marie de France, Christine de Pizan and Margery Kempe. Prerequisite: Two English courses.

ENGL 585-586 SEMINAR IN ENGLISH STUDIES (3) Intensive study of an area of English studies including English, American world literature, a particular period, school, genre or topic including linguistic, critical theory, rhetoric or creative writing. Prerequisite: Junior standing.

ENGL 590 DIRECTED STUDIES IN ENGLISH (3) Independent reading of a specific author, period, topic, problem or school of literature. Topic selected by student in consultation with professor. May be repeated for a maximum of 6 units only. Prerequisites: 18 units in English or 12 units in English and 6 units in a related discipline; minimum 3.00 average in English course work and the related discipline; consent of department chair and instructor (not open to students who have completed ENGL 491).

ENGL 594 TRAVEL AND STUDY (3-6) Places and topics to be selected by student in consultation with instructor. Prerequisites: Two English courses.

ENGL 621 STUDIES IN ENGLISH LITERATURE (3) Study of one major area of English literature (author, period, movement, etc.); areas vary from term to term. Prerequisite: Graduate standing or consent of department.

ENGL 623 STUDIES IN LITERARY CRITICISM (3) Study of one major area of literary criticism (author, period, movement, etc.); areas vary from term to term. Prerequisite: Graduate standing or consent of department.

ENGL 625 STUDIES IN AMERICAN LITERATURE (3) Study of one major area of American literature (author, period, movement, etc.); areas vary from term to term. Prerequisite: Graduate standing or consent of department.

ENGL 627 STUDIES IN WORLD LITERATURE (3) Study of one major area of world literature (author, period, movement, etc.); areas vary from term to term. Prerequisite: Graduate standing or consent of department.

ENGL 631 STUDIES IN LINGUISTICS (3) Topics in the technology and philosophy of language: descriptive grammar, psycholinguistics, sociolinguistics, etc. Topics vary from term to term. Prerequisite: Graduate standing or consent of department.

ENVIRONMENTAL SCIENCE (ENVS)

ENVS 601 TOPICS IN ENVIRONMENTAL GEOLOGY (4) Geological concepts related to developed and developing areas; topics include earth materials, soils and soil formation, hydrological cycle, waste management, water management, geological issues in land-use decision making. Some field work might require weekend obligations. Prerequisite: Admission into the graduate program in Environmental Science or consent of the instructor.

ENVS 602 ENVIRONMENTAL CHEMISTRY (4) Principles of chemistry applied to environmental pollutants; physio-chemical processes controlling pollutant transport, fate and distribution; partitioning of water, soil and air as they relate to biotic systems. Some field work might require weekend obligations. Prerequisite: Admission into the graduate program in Environmental Science or consent of the instructor.

ENVS 603 ENVIRONMENTAL LAW AND REGULATIONS (3) Operation of the American legal system as it functions to control and remediate environmental problems; emphasis on the law and legal processes which govern environmental disputes; function of legal institutions in these disputes; role of regulations in environmental protection. Prerequisite: Admission into the graduate program in Environmental Science or consent of the instructor.

ENVS 604 ECOSYSTEM ECOLOGY (4) Principles of ecosystem ecology; factors controlling ecosystem structure and function; energy balance and biogeochemical cycles. Emphasis on ecological impacts of human alterations and urbanized ecosystems. Development of student capacity for systems thinking via modeling in fields and laboratory-based investigative projects. Implications for environmental management from local to global scale. Some field work might require weekend obligations. Prerequisite: Admission into the graduate program in Environmental Science or consent of the instructor.

ENVS 630 CONCEPTS OF ENVIRONMENTAL ENGINEERING (3) Introduction to the principles and concepts of environmental engineering for non-engineers; review and discussion of methods of assessment and design; modeling methods used; critical assessment of design and different design paradigms; problem solving approaches. Prerequisite: Admission to the Environmental Science graduate program or consent of instructor.

ENVS 635 WETLANDS IDENTIFICATION, CONSERVATION AND DELINEATION (4) The ecological, chemical and physical principles of wetlands biology; characterization, description and mapping of wetland habitats. Wetlands regulations and their ecological basis including hydric soil field indicators, interrelationship of landscape, vegetation and soils. Use of topographic maps, aerial photography, National Wetland Inventory maps and simple survey techniques. Some field work might require weekend obligations. Prerequisite: Admission into the graduate program in Environmental Science or consent of the instructor.

ENVS 640 ECOTOXICOLOGY (3) Fate, activity and dose-response relationships of organisms to environmental toxicants; their absorption, distribution, metabolism and excretion; evaluation of physical, chemical and biological factors that influence toxicity. Quantitative methods and models used in acute and chronic toxicity studies. Prerequisite: Admis-

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sion into the graduate program in Environmental Science or consent of the instructor.

ENVS 645 FLUVIAL GEOMORPHOLOGY AND HYDROLOGY (4) Hydrologic and morphologic characteristics of streams and valley floors; landscape evolution by stream erosion and deposition, rainfall runoff relationships. Field exercises include quantitative analysis of fluvial processes, channel forms, mapping, topographic surveying, report writing. Some field work might require weekend obligations. Prerequisite: Admission into the graduate program in Environmental Science or consent of the instructor.

ENVS 650 AQUEOUS GEOCHEMISTRY (4) Application of thermodynamics, mass balance, systems science, and kinetics to understanding mineral-water-contaminant interactions in natural and impacted aquatic systems on a variety of spatial and temporal scales. Some field work might require weekend obligations. Prerequisite: Admission into the graduate program in Environmental Science or consent of the instructor.

ENVS 670 INDEPENDENT STUDY IN ENVIRONMENTAL SCIENCE (1-3) Studies in selected content areas tailored to student needs. This course may be repeated for a total of 3 units. Prerequisites: Consent of instructor and matriculation in the Environmental Science graduate program.

ENVS 680-689 SELECTED TOPICS IN ENVIRONMENTAL SCIENCE (1-4) Topics in environmental science will be chosen. Course content and field exercises will be determined as to complement course offerings in environmental science. Some field work might require weekend obligations. Prerequisite: Admission into the graduate program in Environmental Science or consent of the instructor.

ENVS 798 RESEARCH PRACTICUM (3) An analytical paper on an approved topic written under faculty supervision. Students are expected to demonstrate scientific literacy,

communication skills, critical thinking and critical analysis in the research practicum. Note: This course cannot be repeated. Prerequisites: Admission to the Graduate Program in Environmental Science, completion of four core courses. Permit required.

ENVS 897 THESIS (6) An original investigation to be completed under the supervision of one or more faculty members. Credit is granted after the thesis is accepted. Prerequisites: Completion of two core courses in the graduate program in Environmental Science and endorsement by at least one member of the graduate faculty willing to serve as research adviser.

ENVS 898 THESIS (3) The previous course, ENVS 897, taken over two consecutive terms.

ENVS 899 THESIS CONTINUUM (1)

FAMILY STUDIES (FMST)

FMST 505 PARENT CHILD RELATIONSHIPS ACROSS THE LIFESPAN (3) Parent-child relationships from pregnancy and childbirth through the death of elderly parents using systems and life perspectives. Cultural and contextual factors shaping the parent-child relationship. Prerequisites: FMST 101 or consent of instructor.

FMST 515 SERVICES TO CHILDREN AND YOUTH (3) Overview of supports and services necessary to foster healthy development in children, youth and families. Focuses on the role of family and community influences in socializing children. Prerequisites: FMST 101, FMST 201, ECE 201, FMST 301, FMST 302, FMST 303 and FMST 305 or consent of the instructor.

FMST 540 THE HOSPITALIZED CHILD AND FAMILY (3) Psychosocial and developmental needs of infants, children, adolescents and families in a health care context, with a focus on the roles and interventions of the child life specialist. Prerequisites: PSYC 101, SOCI 101, PSYC 203.

FMST 545 INTRODUCTION TO ART THERAPY (3) An overview of the art therapy field, presenting its history, major practitioners and theoretical bases. Prerequisites: FMST 101 and PSYC 203.

FMST 550 FUNDAMENTALS OF LEADERSHIP IN THE NONPROFIT SECTOR (3) Overview of nonprofit organizations, roles and responsibilities of leaders, issues concerning nonprofits. Prerequisites: PSYC 101, SOCI 101, ENGL 102, FMST 101, FMST 201, consent of chair.

FMST 570-579 SPECIAL TOPICS IN FAMILY STUDIES (3) In-depth study of a selected topic in family studies. May be repeated for a maximum of 9 units. Prerequisite: FMST 101.

FMST 601 APPLIED FAMILY RELATIONSHIPS (3) Course explores the fundamental components of the development and maintenance of family relationships. Student will critically analyze various perspectives and techniques of interpersonal relationships. Student will apply knowledge through case analysis. Prerequisites: Graduate standing and consent of program director.

FMST 610 FAMILY-PROFESSIONAL COLLABORATION (3) Problem-based learning from a multidisciplinary perspective to enhance professional and family collaboration. Prerequisites: Graduate standing and consent of instructor.

FMST 615 APPLIED RESEARCH METHODS IN FAMILY SCIENCE (3) Program evaluation methodology for assessment of practice in human services. Prerequisites: Graduate standing and consent of program director.

FMST 620 PROJECT IN FAMILY FOCUSED PROGRAM DEVELOPMENT (3) Exploration of complex relationships in family program development, and student involvement in a family-focused service-learning project. Students will conduct initial field exploration

to identify a focus area that could benefit from creative family programming. Potential service areas are school communities, social service agencies and nonprofit programs. Prerequisites: Graduate standing and consent of program director.

FMST 640 MEDICAL ASPECTS OF ILLNESS: A CHILD LIFE PERSPECTIVE (3) An overview of the childhood disease process and its possible impact on child and family. Prerequisite: Graduate standing.

FMST 670 TO 679 SPECIAL TOPICS IN FAMILY STUDIES (3) Study of selected topics in family studies. Topics will vary according to instructor. May be repeated for a maximum of 9 units. Prerequisites: Graduate standing and consent of program director.

FMST 691 INDEPENDENT STUDY IN FAMILY STUDIES (1-6) The independent study course provides students with the opportunity to explore an in-depth topic specific to the area of concentration under the direction of graduate program faculty member. Course may be repeated for a maximum of 6 units. Prerequisites: Graduate standing and consent of program director.

FINANCE (FIN)

FIN 504 FINANCIAL MANAGEMENT (3) Basic concepts of financial management and application in maximizing the value of a corporate entity. Concepts include financial statement analysis, financial statement forecasting and planning, time value of money, financial markets and interest rate determination, security pricing, the cost of capital, valuation, and corporate financial acquisition and distribution policy. Prerequisites: ACCT 504, ECON 504, OPRE 504.

FIN 640 FINANCIAL MANAGEMENT AND POLICY (3) The objective of this course is to provide a comprehensive, intermediate level of coverage of topics in the areas of asset market structure, financial statement and anal-

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ysis, financial forecasting, measurement of risk and security pricing, capital budgeting, valuation, capital structure and the contingent claim (e.g. options and futures) environment and pricing. An emphasis is placed on development and implementation of spreadsheet models applied to live business settings. The course is designed to build upon the basic skills acquired in FIN 504 or its equivalent. Prerequisite: FIN 504.

FIN 704 BANK MANAGEMENT (3) An in-depth examination of the theory and practice of financial decision-making for banks and other depository institutions using both a traditional and a case approach. Topics include bank performance analysis, strategic planning, interest-rate risk management, liquidity management, investment management, loan management, securitization and global bank activities. Prerequisite: FIN 640.

FIN 705 ADVANCED FINANCIAL MANAGEMENT (3) Designed to extend the knowledge and skills acquired in FIN 640 by applying the tools of financial analysis and decision-making at the advanced level. A variety of case and other live problem applications include coverage of the areas of diagnostic financial statement analysis, complex time value of money applications, capital market theory and portfolio management, financial performance forecasting and valuation and development and management of financial policy. Prerequisite: FIN 640.

FIN 715 INVESTMENT ANALYSIS (3) A study of valuation and measurement of risk and return of financial instruments in the context of modern portfolio theory. Coverage of securities includes a variety of stock and bond types, as well as futures and options contracts. Prerequisite: Graduate standing and FIN 640.

FIN 720 INTERNATIONAL FINANCIAL MANAGEMENT (3) The unique issues faced by a corporation doing business in a global environment, especially regarding the efficient management of financial resources. Topics include economic, transaction and accounting

exposure to currency price fluctuations. Prerequisite: FIN 640.

FIN 725 RISK MANAGEMENT (3) A comprehensive overview of concepts and tools of corporate risk management. Critical questions addressed include the motivation for risk management, identification and measurement of risk, and managing risk trade-offs and value added. Coverage of risk management tools begins with the classic Value-at-Risk measure and continues by developing and critiquing more sophisticated methods, including the application of options and futures contracts. Tools are then applied to problems of managing interest rate risk, credit risk and other forms of operating risk. Prerequisite: FIN 640.

FIN 730 FIXED INCOME SECURITIES (3) An introduction to the analysis of fixed income securities, beginning with an overview of the bond market and its mechanisms. A detailed and rigorous examination of bond characteristics and the mathematics of bonds will be made. Analysis will extend to a range of fixed income securities, such as treasury securities, corporate securities and mortgages. Broader strategies for fixed-income portfolio management will also be examined. Prerequisite: FIN 640.

FIN 735 FINANCIAL MODELING (3) Covers the standard financial models in both corporate finance and investments, including capital budgeting, capital asset pricing model, bond calculations and option models. These models will be implemented using Excel and/or MATLAB. Prerequisite: FIN 640.

FIN 745 DERIVATIVE INSTRUMENTS (3) Provides information relevant to a wide range of derivative instruments, including financial and agricultural options, equity options, futures options, currency options and index options. Emphasis is on pricing models, as well as on strategies to identify, price, hedge and transfer risk using derivative instruments. Prerequisite: FIN 640.

FIN 750 REAL ESTATE INVESTMENT (3)

Advanced course in the analysis and valuation of real property, with an emphasis on income-producing property. Topics include: cash flow analysis, internal rate of return calculations under uncertainty, basic appraisal techniques, alternative financing forms, market analysis and the securitization of real property and mortgages. Both theory and case analysis are used. Prerequisite: FIN 640.

FIN 770 ENTREPRENEURIAL FINANCE AND VENTURE CAPITAL (3) Financing an entrepreneurial organization from start-up to initial public offering and beyond. Topic coverage includes identification and assessment of capital needs, financial planning, sources of capital and the role of venture capital and the capital markets in financing entrepreneurial organizations. Prerequisite: FIN 640.

FIN 780 CORPORATE RESTRUCTURING (3) Building on the theory and techniques of cash flow analysis, valuation and investments, this course involves a study of the methods and motives for corporate restructuring. Topics include market discipline and incentive alignment, reinvestment and distribution of cash flows, managing capital structure and mergers, acquisitions and divestitures. Prerequisite: FIN 640.

FIN 797 SPECIAL TOPICS IN FINANCIAL MANAGEMENT (3) Specialized topics in finance, allowing flexibility for both the changing developments in finance and the educational needs of students. Topic areas may include entrepreneurial finance, cash and liquidity. Exact topics are posted in the university schedule of classes. May be repeated for credit as topics vary. Prerequisite: FIN 640 or area approval.

FIN 799 INDIVIDUAL RESEARCH (1-3) Individual research in an area of interest to the student. The expectation is that work equivalent to a regular graduate course will be completed. Formal paper(s) will be written under the supervision of a full-time faculty member. Prerequisite: approval of chair of Division of Economics, Finance and Management Science.

FORENSIC SCIENCE (FRSC)

FRSC 600 FORENSIC SCIENCE AND LAW (3) Study of the judicial response and requirements to uses of forensic science analysis of physical evidence in the investigation, prosecution and defense of a crime with an emphasis on legal casework associated with rules of admissibility of evidence. A practicum involving mock trial courtroom testimony is essential part of the course.

FRSC 601 FORENSIC MOLECULAR BIO-CHEMISTRY (3) Overview of the principles of molecular biology and genetics as it applies to forensic science including DNA metabolism, recombination and mapping, repeat DNA sequences, statistics and significance of variation, Polymerase Chain Reaction, human identification through DNA technologies, population genetics, relationship analyses and databasing. Prerequisite: CHEM 568 or equivalent.

FRSC 610 FORENSIC SEROLOGY (3) Instruction and laboratory practice in identifying body fluids and body fluid stains using various biochemical, instrumental, microscopic and electrophoretic methods to determine their possible origin and species prior to forensic DNA analysis. Blood spatter pattern recognition will be described and used in determining the most probative samples for study at the crime scene and on evidence samples to undergo analysis. Four hours of lecture/laboratory per week.

FRSC 620 DNA TECHNOLOGIES (3) Instruction and laboratory practice in identifying body fluids and body fluid stains as to their source using state-of-the-art DNA technology. Methods include extraction of DNA from forensic biological samples, quantification of the extracted DNA, molecular amplification of the extracted DNA and visualization of short segments known as short tandem repeats or STRs. Four hours of lecture/laboratory per week.

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FRSC 621 ADVANCED DNA TECHNOLOGIES (3) Instruction and laboratory practice in identifying body fluid stains as to their source using current state-of-the-art DNA technology. Instrumental methods of analysis will be emphasized; capillary electrophoresis and genetic analyzer. Interpretation of DNA data using appropriate software and statistics. Use of the national DNA CODIS database. Four hours of lecture/laboratory per week. Prerequisite: FRSC 620.

FRSC 650 FORENSIC MICROSCOPY (3) Instruction and laboratory practice in the methods of collecting, handling, preparing, identifying and comparing items of trace and biological evidence and utilization of the stereomicroscope, microspectrophotometer, polarizing microscope, compound microscope, fluorescent microscope, hot stage microscope and comparison microscope.

FRSC 660 DEATH ANALYSIS IN FORENSIC SCIENCE (3) Forensic examination of the deceased through a multifaceted approach of different forensic specialties. Topics include identifying the deceased, determining the cause and manner of death and establishing the post-mortem interval.

FRSC 787 GRADUATE INTERNSHIP IN FORENSIC SCIENCE (3) Supervised laboratory experience relating forensic theory and practice. The internship will be carried out in a commercial, city, county or federal laboratory.

FRSC 797 GRADUATE SEMINAR FOR FORENSIC SCIENCE (1) Student reports and discussion dealing with forensic research. An abstract, outline of the seminar and bibliography are required. A maximum of 1 unit is allowable for an M.S. degree in Forensic Science. One hour per week.

FRSC 880/881 RESEARCH PROJECT IN FORENSIC SCIENCE (3) Laboratory investigation of a problem of forensic significance under the direction of a faculty member. The project can be carried out at a cooperating

forensic laboratory under the joint supervision of a faculty member and a cooperating forensic scientist. Substantial written report and oral presentation required. May be repeated for a maximum of 6 unit.

FRSC 897 THESIS RESEARCH (6) Original investigation to be completed under the supervision of one or more faculty members. Credit is granted after the thesis is accepted.

FRENCH (FREN)

FREN 501 FRENCH PHONETICS (3) Pronunciation and analysis of spoken French, based on phonological theory. Conducted in French. Prerequisite: FREN 301/302 or equivalent (not open to native speakers of French).

FREN 502 APPLIED FRENCH LINGUISTICS (3) Phonetics, morphology, syntax, points of interference. Linguistic study relating to methodology for French teachers. Conducted in French. Prerequisite: FREN 301/302 or equivalent.

FREN 511 THE FRENCH NOVEL (3) Study of the French novel and narrative techniques from the 17th century to the present day. Conducted in French. Prerequisite: FREN 321/322 or equivalent.

FREN 521 FRENCH LITERATURE OF THE 17TH CENTURY I (3) Selected works from France's major classical writers. Prerequisite: FREN 321/322 or equivalent.

FREN 525 FRENCH LITERATURE OF THE 18TH CENTURY (3) Principal works of the major writers with the concurrent literary and philosophical trends. Conducted in French. Prerequisite: FREN 321/322 or equivalent.

FREN 531 FRENCH LITERATURE OF THE 19TH CENTURY (3) Selected works of major writers and literary movements: romanticism, realism, naturalism and symbolism. Conducted in French. Prerequisites: FREN 321/322 or equivalent.

FREN 541 FRENCH LITERATURE OF THE 20TH CENTURY (3) The evolution from fin de siècle to the present day of the novel, the theatre and poetry as reflections of the artistic and philosophical developments leading to the modern age. Shifting emphasis from term to term. Conducted in French. Prerequisite: FREN 321/322 or equivalent.

FREN 561 FRENCH DRAMA (3) Development of the French theatre from medieval to modern times; its literature and staging, illustrated by representative plays. Shifting emphasis from term to term. Conducted in French. Prerequisite: FREN 321, 322.

FREN 570-592 DIRECTED READINGS IN FRENCH (1-3) Discussion of a central topic with changing emphasis from year to year. Prerequisite: FREN 321 and 322, or equivalent.

FREN 591-592 DIRECTED READINGS IN FRENCH (1-3) Reserved for superior students under the guidance of a departmental adviser. Conducted in French. Prerequisite: Graduate standing.

FREN 605 FRENCH STYLISTIQUES (3) Practice in writing and comparison of style of various writers. Intensive and detailed textual explanation. Conducted in French. Prerequisite: Undergraduate degree in French or consent of department chair.

FREN 633 SEMINAR ON FRENCH CLASSICISM (3) The origins and underlying ideas of classicism. Conducted in French. Prerequisite: Undergraduate degree in French or consent of department chair.

FREN 635 SEMINAR IN MEDIEVAL FRENCH LITERATURE (3) Concentration on a particular topic or on one or two major authors; may be reelected once. Prerequisite: Undergraduate degree in French or consent of department chair.

FREN 638 SEMINAR IN 18TH-CENTURY FRENCH LITERATURE (3) The literature of the French Enlightenment, concentrating on

one or two major authors. Conducted in French. Prerequisite: Undergraduate degree in French or consent of department chair.

FREN 639 THE ROMANTIC ERA IN FRANCE (3) Sources and theories of romanticism. Work of major French romantic writers. Conducted in French. Prerequisite: Undergraduate degree in French or consent of department chair.

FREN 670-679 SPECIAL TOPICS IN FRENCH LANGUAGE, LITERATURE AND CIVILIZATION (3) Discussion of a central topic with changing emphasis from year to year. Prerequisite: Undergraduate degree in French or consent of department chair.

GENERAL STUDIES (GENL)

GENL 501 TOPICS IN SOCIAL SCIENCE (3) Issues and problems to be selected by the instructor and studied from the multiple approaches of various social sciences. Prerequisite: 15 units in the social sciences.

GENL 511 CREATIVE METHODS OF SOLVING PROBLEMS WORKSHOP (3) The theory and practice of creative problem-solving techniques. Analysis and practical application of creative processes with attention to skills in data gathering, problem analysis, idea production, solution evaluation and strategy development for implementation. Individual and small group work will be employed. Prerequisites: PSYC 101, EDUC 445, GENL 203 or consent of instructor.

GENL 521 INTERDISCIPLINARY WORKSHOP IN ASIAN STUDIES (3) Intensive study of a chosen region of Asia, including its physical environment, historical development, government, society, culture and their interrelationships. An interdisciplinary team of faculty experts will participate, and the region of Asia studied will vary according to demand. Prerequisite: Approval of graduate program director.

GEOGRAPHY AND ENVIRONMENTAL PLANNING (GEOG)

GEOG 502 ENERGY RESOURCES (3) Spatial patterns of traditional and alternative forms of energy will be analyzed. The many facets of the energy problem will be analyzed including physical deposits, economic variables, public policy implication and geographical patterns. Prerequisite: 6 units of geography or consent of instructor.

GEOG 503 SOILS AND VEGETATION (3) A resource study of the world's soils and plant formations with emphasis placed upon their genesis and spatial differentiations. Prerequisites: GEOG 101 and one of the following: CHEM 101, BIOL 110, BIOL 201 or BIOL 205.

GEOG 504 INTERPRETATION OF AERIAL PHOTOGRAPHS (3) Reading and interpretation of aerial photographs. The application of the aerial photograph in the fields of geography, geology and photogrammetry.

GEOG 505 CARTOGRAPHY AND GRAPHICS I (3) Study in design, construction and effective application of maps and charts for analysis and publication; practical exercises in the use of cartographic tools, materials and techniques.

GEOG 510 HISTORICAL GEOGRAPHY OF URBANIZATION (3) Spatial and temporal development of urbanization and urban morphology from the rise of civilization in the ancient Near East to the contemporary post-industrial city. The entire scope of urban functions is surveyed, with the emphasis on the city as a manmade environment. Prerequisite: 6 units of geography or consent of instructor.

GEOG 511 CULTURAL GEOGRAPHY (3) Study of origins and diffusion of cultures and the resulting impact in creating the world's contrasting cultural landscapes. Prerequisite: 6 units of geography or consent of instructor.

GEOG 512 ECONOMIC GEOGRAPHY (3) Designed to explain the location of economic activities through a series of principles and theories. Emphasis on the various sectors of the economy, transportation and economic development. Prerequisite: 6 units of geography or consent of instructor.

GEOG 515 CLIMATOLOGY (3) Character, causes and distribution of climatic types. Emphasis upon world pattern. Students may be required to do fieldwork. Prerequisite: 6 units of geography or consent of instructor.

GEOG 516 QUANTITATIVE METHODS IN GEOGRAPHY (3) Focus on statistical problems associated with the analysis of geographic data. Emphasis on the unique spatial problems of point pattern analysis, aerial association and regionalization. Prerequisite: 6 units of geography, MATH 119 or consent of instructor.

GEOG 517 DESCRIPTIVE METEOROLOGY (3) An introduction to the study of weather. Emphasis on the interaction of solar energy, air pressure, wind, and moisture in creating global weather patterns. Field work may be required. Prerequisite: 6 units of natural science or geography or the equivalent.

GEOG 519 POLITICAL GEOGRAPHY (3) Effect of political groupings upon human's use of the world and the influence of the geographic base upon political power. Prerequisite: 6 units of geography or consent of instructor.

GEOG 520 POPULATION GEOGRAPHY (3) General population theory, data sources for population geographers and the processes of fertility, mortality and migration. Patterns of population growth and change viewed from both temporal and geographical perspectives. Prerequisite: 6 units of geography or consent of instructor.

GEOG 522 URBAN SYSTEMS I (3) Survey of the structure, functions, forms and development of urban units. Emphasis upon the loca-

tional features of social, economic and cultural phenomena; fieldwork required. Prerequisite: 6 units of geography or consent of instructor.

GEOG 523 GIS APPLICATIONS (3) Geographic information systems for solving real-world problems; vector-based GIS software, microcomputers for development of a GIS application. Prerequisite: Introduction to GIS or consent of instructor.

GEOG 551 GROWTH OF GEOGRAPHIC THOUGHT (3) History, nature and methodology of geography as a discipline. Analysis of schools of geographic thought and critical evaluation of important geographic work. Prerequisite: 6 units of geography or consent of instructor.

GEOG 553 COMPREHENSIVE PLANNING (3) The integration of separate urban systems into the comprehensive design of an urban region. Special emphasis will be placed on neighborhood, community and town planning. Fieldwork may be required. Prerequisites: GEOG 391 and GEOG 392 or equivalent and consent of instructor.

GEOG 557 STUDIES IN NATURAL HAZARDS (3) The nature, frequency of occurrence and distribution of environmental hazards and their impact on humans. Prerequisite: 6 units of geography or consent of instructor.

GEOG 559 GEOGRAPHICAL ASPECTS OF POLLUTION (3) A systematic study of the spatial aspects of air and water pollution, with special emphasis on pollution in the greater Baltimore area. Field trips will be conducted to pollution sites and pollution control agencies within the local area. Prerequisite: 6 units of geography or consent of instructor.

GEOG 560 GEOGRAPHY OF ANGLO-AMERICA (3) Physical and cultural landscapes of the United States and Canada, including patterns of economic development of each region and their relationship to their environmental setting. Prerequisite: 6 units of geography or consent of instructor.

GEOG 561 GEOGRAPHY OF MARYLAND (3) A geographical study of the Middle Atlantic region emphasizing Maryland in its metropolitan setting. Much attention will be given to the human and physical elements which have led to the prominence of this region. A supervised research paper will be an important part of this course. Prerequisite: 6 units of geography or consent of instructor.

GEOG 562 GEOGRAPHY OF AFRICA (3) A systematic and regional approach to the study of people and environment of Africa, south of the Sahara. Special focus is placed on the distribution of natural resources and the historical-political development of each country as important background for the understanding of current African affairs. Prerequisite: 6 units of geography or consent of instructor.

GEOG 563 THE SILK ROAD: THE GEOGRAPHIES OF CENTRAL EURASIA (3) Central Asia geographies and histories in the context of the extended Silk Road Region; its cultural identities. Political economics, and ideological struggles; the bonds and interactions of the emerging nations of Central Asia with Russia, the U.S., China, Turkey, and Iran. Prerequisites: Instructor Permission.

GEOG 564 GEOGRAPHY OF EAST ASIA (3) Regional studies of the physical and cultural foundations in China, Japan and Korea. Emphasis upon human and economic resources and role in world affairs. Prerequisite: 6 units of geography or consent of instructor.

GEOG 565 GEOGRAPHY OF THE MIDDLE EAST (3) Analysis of Southwest Asia and North Africa, including major natural and cultural resources, related patterns of spatial organization, economic and political development and associated problems. Prerequisite: 6 units of geography or consent of instructor.

GEOG 566 GEOGRAPHY OF EUROPE (3) Regional analysis and appraisal of the human geography and natural resources of Europe. Problems of nationality, economic development and cultural conflicts. Prerequisite: 6 units of geography or consent of instructor.

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GEOG 567 GEOGRAPHY OF THE FORMER USSR (3) Physical and cultural patterns and their bearing on the former Soviet Union as a world power. Regional distribution and use of natural and human resources in agriculture and industry. Problems in economic development and production. Prerequisites: 6 units of geography or consent of instructor.

GEOG 568 GEOGRAPHY OF LATIN AMERICA (3) Analysis of Latin America will be focusing on the interrelationships between physical and cultural elements which provide a diversity of human habitats throughout the region. Prerequisite: 6 units of geography or consent of instructor; may be repeated for a maximum of 6 units.

GEOG 569 THE TWO DOWN UNDERS: GEOGRAPHIES OF AUSTRALIA AND AOTEAROA-NEW ZEALAND (3) Analysis of the physical and cultural landscapes of Australia and Aotearoa/New Zealand, including patterns of settlement and economic development and the relationship of these patterns to their environmental settings. Emphasis on the historical backgrounds of these countries' present landscapes. Prerequisites: 6 units of geography or permission of the instructor.

GEOG 570-579 SEMINAR: SELECTED TOPICS IN GEOGRAPHY (3) Reading and research in selected topics in the field of geography. Seminar topics will be announced. Prerequisite: 6 units of geography or consent of instructor.

GEOG 582 GEOGRAPHY/ENVIRONMENTAL PLANNING INTERNSHIP (1-6) Supervised placement and research in selected public and private agencies at appropriate institutions. Prerequisites: Consent of chair and 6 units in geography. May be repeated for a maximum of 6 units (not open to students who have completed 6 units in GEOG 479).

GEOG 583 FIELD GEOGRAPHY (2-6) Practical laboratory experience in techniques in the collection and analysis of data by observations, measurements, mapping and photographic records. Such techniques are to be applied to selected geographic problems. Pre-

requisite: 6 units of geography or consent of instructor.

GEOG 584 TRAVEL AND STUDY (3-6) Countries and topics to be selected by departments and instructors sponsoring the program. For complete information contact the chair of the department. Prerequisite: Consent of instructor. May be repeated for a maximum of 6 units.

GEOG 585 DIRECTED READING IN GEOGRAPHY (3) Independent reading in selected areas of geography. Open by invitation from the geography department to students taking a major or minor in Geography. Prerequisites: 15 units in geography and a minimum average of 3.00 in geography course work. May be repeated for a maximum of 6 units.

GEOG 586 INDEPENDENT STUDY IN GEOGRAPHY (1-6) Independent research, study or field experience under supervision of a member of the geography faculty. Designed for advanced students who wish to conduct independent investigation on aspects of geography which are of special interest or not covered in other courses. Registration arranged with department chair. Prerequisites: Advanced undergraduate standing with at least 18 units in geography or graduate standing. May be repeated for a maximum of 6 units.

GEOG 587 ENVIRONMENTAL IMPACT ANALYSIS (3) The collection and analysis of physical, social, biological and economic information for the preparation of environmental impact statements (EIS). Prerequisite: 6 units of geography or consent of instructor.

GEOG 601 SEMINAR ON GEOGRAPHICAL PERSPECTIVES (3) Study of major subfields of geography as they have emerged in the 20th century and their differing viewpoints. Prerequisite: Graduate standing.

GEOG 621 RESEARCH TECHNIQUES (3) Investigating the primary sources of informa-

tion in geography and learning the nature of original investigation. Prerequisite: Graduate standing.

GEOG 625 PLANNING FOR A SUSTAINABLE REGION (3) The theory and practice of comprehensive regional planning as well as methods for assuring sustainability. Prerequisites: A graduate-level planning course or consent of instructor.

GEOG 631 REMOTE SENSING (3) Remote-sensing systems. Interpretation and use of the data products, with emphasis on Land Satellite Imagery (Landsat). Prerequisite: Consent of department.

GEOG 641 APPLIED PHYSICAL GEOGRAPHY (3) Physical environment as it influences and is altered by human activities. Prerequisite: GEOG 101 or equivalent.

GEOG 651 SEMINAR IN APPLIED POPULATION GEOGRAPHY (3) Focus on obtaining, interpreting and using population data for applied purposes. Prerequisite: Consent of instructor.

GEOG 652 SEMINAR IN MEDICAL GEOGRAPHY (3) Medical geographic principles and techniques applied to the study of health issues in contemporary society. Emphasis on tools, methodology and problem-solving situations. Prerequisite: GEOG 375 or consent of instructor.

GEOG 653 ADVANCED TOPICS ON ENVIRONMENTAL HAZARDS (3) Selected advanced topics on the human dimensions of environmental hazards and disasters. Topics may include social vulnerability, hazard assessment, mitigation planning and emergency management, hazards and development, gender issues, and GIS applications. May be repeated under a different subtitle for a maximum of 9 units. No more than 9 units may be applied toward the degree. Prerequisites: Graduate standing and consent of the instructor.

GEOG 661 STUDIES IN ECONOMIC GEOGRAPHY (3) The study of selected geographical topics dealing with spatial distributions of economic activities. Topics will be announced. Prerequisite: Consent of department. No more than 6 units may be applied toward the degree.

GEOG 663 THE SILK ROAD: THE GEOGRAPHIES OF CENTRAL EURASIA (3) Course offers in-depth discussion of Central Asian geographies and histories in the context of the extended Silk Road Region. The extended region represents a mélange of cultural identities and histories, political economies and ideological struggles that bind the emerging nations of Central Asia to Russia, and increasingly to the US. Current interactions of the newly formed republics with China, Turkey and Iran will also be explored.

GEOG 671 STUDIES IN PHYSICAL GEOGRAPHY (3) Selected geographical topics dealing with physical landscape phenomena, especially with regard to distribution, relationships and significance to mankind. Topics will be announced. Prerequisite: Consent of department. No more than 6 units may be applied toward a degree.

GEOG 672-679 SPECIAL TOPICS IN GEOGRAPHY AND ENVIRONMENTAL PLANNING (3) Topics in geography or environmental planning. Varies each term. Prerequisite: Consent of department.

GEOG 681 SEMINAR IN POLITICAL GEOGRAPHY (2-6) Special subjects dealing with geography of international politics, e.g. boundary problems, global strategy, space, sovereignty. Topics to be announced. No more than 6 units may be applied toward the degree. Prerequisite: Consent of department.

GEOG 683 SEMINAR: ENVIRONMENTAL PROBLEMS IN MARYLAND (3) Individual research on a selected environmental problem in Maryland. Prerequisite: Consent of department.

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GEOG 691 URBAN GEOGRAPHY STUDIES (2-6) Selected topics dealing with the application of geography to planning, retail and industrial location, and trade analysis; topics to be announced. Prerequisite: Consent of department. No more than 6 units may be applied toward a degree.

GEOG 701 LAND USE STUDIES (2-6) Selected problems of urban, rural and rural-urban landscapes, which consider and account for geographic differences in land utilization; topics to be announced. Prerequisite: Consent of department. No more than 6 units may be applied toward a degree.

GEOG 771 SEMINAR IN REGIONAL GEOGRAPHY (2-6) Description, analysis and interpretation of natural and cultural phenomena in certain significant geographic regions; seminar topics will be announced. Prerequisite: Consent of department. No more than 6 units may be applied toward a degree.

GEOG 796 INTERNSHIP IN GLOBAL SKILLS (3-6) Students will enroll in an internship with a governmental or non-governmental organization whose work is concerned with issues of international scope. This course is open only to students in the accelerated master's program in Geography, and who have taken GEOG 621 Research Methods. Students enrolled in GEOG 796 must have a faculty supervisor oversee their internship.

GEOG 797 RESEARCH (2-6) Investigation of problem or problems based upon field and library study, which will contribute to geographical knowledge. Prerequisite: Consent of department. No more than 6 units may be applied toward a degree.

GEOG 897 MASTER'S THESIS (6) Prerequisites: GEOG 621 and consent of department.

GEOG 898 THESIS (3) The previous course, GEOG 897, taken over two consecutive terms.

GEOG 899 THESIS CONTINUUM (1)

GEOLOGY (GEOL)

GEOL 505 ENVIRONMENTAL GEOLOGY (4) Earth's natural surface systems (hydrologic, atmospheric and climatic): causes and extent of human modifications; potential solutions to resulting problems. Prerequisite: GEOL 121.

GEOL 515 HYDROGEOLOGY (4) Geologic aspects of ground water; origin, occurrence and movement; resource evaluation; flow modeling and contamination. Prerequisites: Required: CHEM 102, PHYS 212 or PHYS 242; recommended: GEOL 321 and GEOL 443.

GEOL 521 STRUCTURAL GEOLOGY (4) Description and interpretation of shape and internal fabric of deformed rock bodies and analysis of mechanics by which they were deformed. Prerequisites: GEOL 121 and PHYS 211 or equivalent.

GEOL 531 MINERALOGY (4) The study of minerals with emphasis on crystallography, crystal chemistry and chemical-structural classification. Laboratory identification of minerals both in hand specimen and thin section by application of principles of optical mineralogy. Three lecture hours and two hours of laboratory. Prerequisites: GEOL 121 and CHEM 110.

GEOL 533 PETROLOGY OF IGNEOUS AND METAMORPHIC ROCKS (4) Study of the properties and genesis of two major rock groups. Megascopic and microscopic techniques in rock classification. Environments of formation. Three lecture hours and two hours of laboratory. Prerequisite: GEOL 331.

GEOL 541 OPTICAL MINERALOGY AND PETROGRAPHY (3) Course includes the theory and application of polarized light and elements of crystallography in the analysis of rock-forming minerals by use of a petrographic microscope. Prerequisite: GEOL 333.

GEOL 543 SEDIMENTOLOGY AND STRATIGRAPHY (4) Production, transport and deposition of sediments and sedimentary bodies for the development of facies models useful in interpretation of the stratigraphic records. Prerequisites: GEOL 121 and CHEM 110. Not open to students who have successfully completed PHSC 443.

GEOL 551 PETROLOGY OF SEDIMENTARY ROCKS (3) Macro and microscopic analysis of sedimentary rocks. Classifications and diagenetic processes. Prerequisite: GEOL 443. Offered spring term alternate years.

GEOL 557 PHYSICAL OCEANOGRAPHY (3) Physical, chemical and geologic characteristics of ocean basins, boundaries and sea water including origin and behavior of waves and currents. Prerequisites: PHYS 211 or PHYS 241 and CHEM 110, or consent of instructor.

GEOL 570-579 SPECIAL TOPICS IN GEOLOGY (1-4) The study of special topics in the Geosciences. Special topics will be determined by their need for study and relevance to existing courses. May be repeated for a maximum of 6 units provided a different topic is covered. Special permit required.

GEOL 595 REGIONAL GEOLOGY (2) Design and successful completion of a geological research project based on a problem of regional significance. Project results will be presented in a forum. Field trips required. Prerequisites: GEOL 121, 123, 489, and two additional upper-level geology courses.

GERONTOLOGY (GERO)

GERO 510 SOCIAL ISSUES IN HUMAN LIFESPAN TECHNOLOGY (3) Technologies that provide a longer and better quality life; social, financial, ethical and legal implications. Prerequisites: BIOL 110, GERO 101.

GERO 530 COMMUNITY PLANNING FOR AN AGING SOCIETY (3) Multidisciplinary approach to the urban environment as

a physical and social context for the diverse lifestyle of its older residents. Theoretical approaches to aging and the environment with emphasis on the impact of communities and built environments.

GERO 550 DIRECTED READINGS IN GERONTOLOGY (3) Systematic inquiry into a topic of the student's choice. Prerequisites: Graduate standing and consent of adviser.

GERO 567 DEATH, DYING AND BEREAVEMENT (3) Examination of present social considerations on death, including demographic, attitudinal and ritualistic variables; death education through the life cycle; structure of the grief process; impact of terminal illness on the patient and the family; ethical issues surrounding euthanasia and suicide. Prerequisite: SOCI 101.

GERO 601 SEMINAR IN PROFESSIONAL GERONTOLOGICAL ISSUES (3) Issues related to demographic changes, community services and standards for specific service areas.

GERO 610 APPLIED RESEARCH METHODS (3) Research methods for applied practice settings. Prerequisite: PSYC 212 or consent of instructor.

GERO 620 LEGAL ISSUES IN GERONTOLOGICAL PRACTICE (3) Legal and regulatory issues in gerontological practice.

GERO 625 GERIATRIC CARE MANAGEMENT (3) Fundamental principals and practice standards of professional geriatric care management.

GERO 684 GERONTOLOGICAL PRACTICUM (3) Supervised practicum in community agency or organization. Prerequisites: Substantial completion of M.S. program and permission of faculty adviser.

GERO 685 INDEPENDENT STUDY IN GERONTOLOGICAL PRACTICE (3) Independent research in gerontological practice area. Prerequisites: Substantial completion of M.S. program and permission of faculty adviser.

GERMAN (GERM)

GERM 570-579 SPECIAL TOPICS IN GERMAN (3) Discussion of a central topic, with changing emphasis from year to year. Conducted in German. Prerequisite: GERM 321 or equivalent.

GERM 591-592 DIRECTED READINGS IN GERMAN (1-3) Reserved for superior students under the guidance of a departmental adviser. Conducted in German. Prerequisite: Graduate standing.

GERM 670-679 SPECIAL TOPICS IN GERMAN (3) Discussion of a central topic concerning literature and society, with changing emphasis from year to year. Prerequisite: Undergraduate degree in German or consent of department chair.

HEALTH CARE MANAGEMENT (HCMN)

HCMN 517 LONG-TERM CARE ETHICAL PROBLEMS (3) Applying long-term care law, rules, theory and clinical and administrative best practice to the solution of practical ethical problems common in long-term care. Prerequisite: HLTH 207 or instructor's consent.

HCMN 519 LONG-TERM CARE ADMINISTRATION (3) An introduction to institutional and community-based long-term care facility administration. Examines law, rules and nationally established domains of nursing home and residential care managerial practice within an ethically based philosophy of care. Prerequisites: HLTH 207, HLTH 305, and HCMN 413 or instructor's consent.

HCMN 541 LEGAL AND ETHICAL ISSUES IN HEALTH ADMINISTRATION (3) Examines legal and ethical issues in the administration of health programs. Emphasis is placed on the impact of cost-containment efforts, quality and malpractice concerns, profit seeking in health, biomedical advances and new delivery mechanisms. Formerly HLTH 541. Prerequisite: Consent of instructor.

HEALTH SYSTEMS MANAGEMENT (HSMG)

These courses are offered at the University of Baltimore only as part of the UB/Towson joint MBA program.

HSMG 630 THE LEGAL ENVIRONMENT OF HEALTH CARE MANAGEMENT (3) Provides a framework for understanding the legal implications of advancing medical technologies and of new forms for health-services financing and delivery systems.

HSMG 650 QUANTITATIVE MANAGEMENT METHODS FOR DECISIONS IN HEALTH SYSTEMS (3) Provides an operational understanding of quantitative models to support resource allocation decisions. Students will develop an understanding of the process of quantitative modeling; learn to identify appropriate and inappropriate applications of techniques such as linear programming, forecasting, decisions analysis, scheduling and inventory control models; develop a conceptual as well as computational understanding of these models; and critically evaluate a published operations research application. Prerequisite: HSMG 632.

HSMG 651 SURVEY RESEARCH AND DATA ANALYSIS FOR HEALTH ADMINISTRATORS (3) Provides hands-on experience using data analytic methods that are typically used in health care settings. The course emphasizes surveys and their application to managerial decisions.

HSMG 691 HEALTH PLANNING AND PROGRAM EVALUATION (3) Explains the theoretical and historical foundations of health planning, the relationship between health planning and regulation and the application of planning methods.

HSMG 695 HEALTH CARE MANAGEMENT INFORMATION SYSTEMS (3) Provides an extensive overview of information systems in health care organizations from the perspective of health systems managers.

HSMG 697 HEALTH INSURANCE AND PREPAID HEALTH CARE (3) Provides an operational understanding of insurance and alternate payment methods in health care. Includes topics relating to risk management and the roles of government, employers and individuals in the selection and use of insurance products for health care.

HSMG 699 HEALTH FINANCE (3) Focuses on selected, topical health-finance issues such as health insurance reform, Medicare finance revisions and emerging health finance issues, such as preparing and financing a comprehensive national bio-preparedness program.

HSMG 752 INTERNSHIP (3) Serves to build a bridge between theory and practice. Students have the opportunity to apply their knowledge and acquire insights into the management of health service organizations.

HSMG 766 HEALTH SYSTEMS MANAGEMENT: ORGANIZATIONAL DESIGN AND HUMAN RESOURCES (3) Builds on PUAD 755 and provides an in-depth examination of organizational design theories, their applicability to various health care settings and their implications for human resources and labor relations.

HEALTH SCIENCE (HLTH)

HLTH 501 TEACHING ABOUT DRUGS AND SEX (3) Content, procedures and methods for presenting sensitive subjects, including human sexuality and drugs.

HLTH 502 HEALTH AND SOCIAL WELFARE PROMOTION: HEALTH COMMUNICATION (3) Analysis of program planning, evaluation and communication theory with emphasis on the persuasion process to improve healthy and other social conditions of living. Application of theoretical principles will be augmented with specific skills development to construct, implement and evaluate promotion efforts. Prerequisite: HLTH 101 or equivalent.

HLTH 505 DRUGS IN OUR CULTURE (3) In-depth review of harmless, harmful, useful and useless substances which may affect behavior or mood; the interaction of psychological, sociological and physiological components included.

HLTH 507 VIOLENCE PREVENTION FOR HEALTH EDUCATORS (3) Developing effective violence prevention programming for future school and community health educators. Prerequisite: SOCI 358 or consent of instructor.

HLTH 511 HEALTH AND LATER MATURITY: THE AGING PROCESS (3) An approach to the conservation of human resources with an emphasis on understanding attitudes and practices related to health in later maturity. Designed for students with a personal or professional interest in the field.

HLTH 551 INTRODUCTION TO ENVIRONMENTAL HEALTH (3) Examination of the interrelationship between man and his environment. Emphasis is placed upon health aspects of pollution, housing, sanitation, radiation, behavioral disorders and epidemiology.

HLTH 570-579 HEALTH WORKSHOP (3) For teachers, administrators and individuals concerned about health-related fields. Contemporary health aspects are considered with emphasis on implementation of positive behavior aimed at improving the health of the individual and the community. Students who elect this course for 6 units will participate in two workshops. Enrollment is limited to 25.

HLTH 591 HEALTH-DIRECTED READINGS (1-3) Independent reading in health or related disciplines. Prerequisite: Permit only.

HLTH 594 HEALTH TRAVEL AND STUDY (3) Examination of various types of health care delivery in the countries and cities visited in comparison with that of the United States. For complete information, contact the department chair. Prerequisites: HLTH 101 and either HLTH 201 or HLTH 202 or consent of instructor.

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HLTH 595 INDEPENDENT STUDY (3) Directed study on specific problems in health and related fields. Prerequisite: Permit only.

HLTH 601 CONTEMPORARY ISSUES IN SCHOOL HEALTH EDUCATION (3) Structure, organization, scope, content and practices in school health as revealed through literature and research.

HLTH 603 EMERGING ISSUES IN THE HEALTH OF THE NATION (3) Health practice as a response to pressing social, political and health issues, including the process of identifying such issues, the development of strategies to deal with them, the challenges involved in implementing programs, and the integration of lessons learned into future practice.

HLTH 611 CURRENT LITERATURE IN HEALTH (3) Research findings concerning knowledge, attitudes, behavior and educational techniques in health. A comprehensive review of health-related periodicals. Prerequisite: Consent of instructor.

HLTH 615 COMMUNITY HEALTH: QUALITATIVE AND QUANTITATIVE ELEMENTS (3) Vital and health statistics, population dynamics, epidemiology, quantitative models and simulation for health systems planning/evaluation. Prerequisite: Permit only.

HLTH 617 HEALTH ADMINISTRATION (3) Dynamics of the health industry, concepts of management and administration.

HLTH 618 INTRODUCTION TO PUBLIC HEALTH (3) This course provides an overview of the science and the art of preventing disease, prolonging life, and promoting health. The course will focus on community efforts to ensure that every individual obtains an adequate standard of living for the maintenance of health.

HLTH 619 ORGANIZING SYSTEMS OF CARE FOR CHRONICALLY ILL AND PHYSICALLY DEPENDENT POPULATIONS (3) This course will offer an in-depth examination of the public and private sectors of the long-term care industry as well as the political and regulatory structures that impact them. Issues of access and availability to services and housing options will be discussed in the context of relevant research examining costs and quality of care. Readings and class discussions will focus on managerial challenges associated with developing more efficient systems of care for populations with special needs (e.g., the frail elderly, developmentally challenged, non-aged physically disabled, etc.). Prerequisite: HLTH 617 or consent of instructor.

HLTH 625 RESEARCH METHODS IN HEALTH (3) Research and statistical designs related to health science and allied health disciplines. Prerequisite: HLTH 615. Permit only.

HLTH 627 HEALTH AND WORKER PERFORMANCE (3) Analyzes health issues that affect worker performance, e.g., high blood pressure, cancer, substance abuse, divorce, career crises, aging, AIDS, sexual abuse and child-care arrangements, from the view of the employee. Emphasis is on the content of each issue with direct application to worksite problems. Prerequisite: HLTH 631.

HLTH 631 PROGRAM PLANNING IN HEALTH EDUCATION (3) Planning models in health with integration to program planning for health information and health promotion. Skills developed in proposal writing.

HLTH 633 HEALTH CARE SYSTEMS (3) Development of the American health care system and trends in organization, administration, funding and legislation.

HLTH 635 EDUCATIONAL STRATEGIES FOR HEALTH (3) A seminar analyzing the application of education and social science theories for health promotion and health education. Prerequisite: Consent of instructor.

HLTH 636 INTERMEDIATE STATISTICS FOR THE HEALTH SCIENCES (3) The focus of this course is on the statistical methodologies and research designs in public health. The course content ranges from Single Factor to Multiple Factor analyses. Advanced statistical analytical techniques will be addressed using handheld calculators (TI 83 or equivalent), as well as statistical software available in Excel and SPSS. Topics such as effect size, confidence intervals, standard error of the mean, Type I error, Type II error, and power will be continuously emphasized throughout the course. May be repeated for a maximum of 3 units.

HLTH 637 SKILL DEVELOPMENT: LEADERSHIP IN THE HEALTH CARE SETTING (3) Didactic and experiential activities in community health education with emphasis on human interaction leadership skills.

HLTH 639 INTRODUCTION TO HEALTH BEHAVIOR AND HEALTH PROMOTION (3) Course provides the foundation for understanding health promotion and health behavior. Aspects of organizing, marketing, implementing and evaluating health promotion programs are addressed.

HLTH 643 HEALTH EDUCATION: CURRICULUM DEVELOPMENT AND SUPERVISION (3) Methods and techniques for designing and implementing school health education.

HLTH 645 HEALTH CARE POLICY (3) An examination of public and private health care policy making and implementation. Particular attention is paid to current policy issues and to the roles and powers of consumers, administrators, legislators and regulators. Prerequisite: Consent of instructor.

HLTH 647 HEALTH CARE FINANCIAL MANAGEMENT (3) Examines financial aspects of health care, including accounting and budgeting. Aspects of production, distribution and organization and health services are reviewed from financial and economic perspectives. Prerequisite: HLTH 615. Also listed as IDHP 647.

HLTH 649 PROGRAM EVALUATION (3) This course will describe the purpose, applications and role of evaluation and promotion programs. It will enable the students to understand and apply three levels of evaluation: process evaluation, program evaluation and evaluation research. Prerequisite: HLTH 631.

HLTH 651 PLANNING AND MARKETING HEALTH IN BUSINESS AND INDUSTRY (3) Health promotion and delivery in the profit and not-for-profit sectors. Concepts and application of planning and marketing health in various settings. Prerequisite: HLTH 617. Also listed as IDHP 651.

HLTH 653 RESPONSIBLE CONDUCT OF RESEARCH (3) An interdisciplinary exploration of issues in the ethical conduct of research, and in the process of moving from graduate school into a career. Includes: societal, political, and institutional environment and values surrounding research and research misconduct; ways to encourage research integrity; and ways to evaluate it.

HLTH 655 MANAGING CONFLICT, VIOLENCE AND ABUSE IN HEALTH SERVICE SETTINGS (3) Knowledge and skills necessary to handle conflict, violence and abuse that occur across a range of health service settings. This practical course draws upon theory and research to illustrate the complex dynamics that breed excessive health service conflict, but that also point to the situationally appropriate means of resolving problems effectively through healthy forms of conflict and open, trustful communication.

HLTH 656 MANAGING VOLUNTEERS IN HEALTH SERVICE SETTINGS (3) Essential knowledge and skills that effectively lead volunteers in diverse health service programs. Comprehensive survey of volunteer management and leadership skills, competencies, traits, techniques, and responsibilities that are essential to finding, placing, training, motivating and keeping non-obligated workers in health service settings. American volunteerism's socio-demographic profile and socio-

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economic influence in view of emerging trends, threats and opportunities.

HLTH 657 HEALTH ADVOCACY ACROSS SERVICE SETTINGS (3) Knowledge and skills necessary to effectively advocate for the right-based need of vulnerable populations in American health service settings. Focus on achieving partisan advocacy goals at both the micro-individual and highest macro policy levels as well as virtually every health organizational setting in between. Provides detailed knowledge as well as skills building experience in how to investigate complaints, interview clients, witnesses, targets, decision makers, and others, and demonstrates how to analyze gleaned information to achieve client claims.

HLTH 670-679 SPECIAL TOPICS (3) Focuses on currently important health topics: fitness in a hypokinetic world, aging, death, alcohol and its abuse, consumerism, disease, weight control, value clarification and development of a personal philosophy of health. Prerequisite: Consent of instructor.

HLTH 689 FIELD EXPERIENCE (3-9) Supervised, on-site experience in the following community health settings: hospital, clinic, agencies, business/industry. Prerequisite: Permit only.

HLTH 691 DIRECTED READINGS IN HEALTH (3) Individual study of a problem in health through consultation with faculty members. Prerequisite: Permit only.

HLTH 695 INDEPENDENT STUDY (3) Directed study on specific problems in health and related fields. Prerequisite: Permit only.

HLTH 785 GRADUATE SEMINAR IN HEALTH (3) Analysis of research trends and issues in health education. Student presentation of research designs and projects. Professional membership and ethics. Prerequisite: HLTH 625. Permit only.

HLTH 880 GRADUATE PROJECT IN HEALTH SCIENCE (3) Individual study and

preparation of a project which is oriented toward the application of specific techniques in health education. Prerequisite: HLTH 785. Permit only.

HLTH 885 PROJECT CONTINUATION (1) Continuation of graduate project. Prerequisite: Previous registration for project work.

HLTH 897 MASTER'S THESIS IN HEALTH (6) An original investigation using an acceptable research method and design conducted under the direction of one or more faculty members. Prerequisite: HLTH 785. Permit only.

HLTH 898 THESIS (3) The previous course, HLTH 897, taken over two consecutive terms.

HLTH 899 THESIS CONTINUUM (1)

HISTORY (HIST)

HIST 501 ANCIENT NEAR EASTERN CIVILIZATIONS (3) The civilizations of Mesopotamia and Egypt and the peripheral developments in Syria-Palestine and Asia Minor. Prerequisite: HIST 101 or consent of instructor.

HIST 502 HISTORY OF SOUTHERN AFRICA (3) Social and cultural change in South Africa from early times to present. Prerequisite: HIST 135 or consent of instructor.

HIST 503 ALEXANDER THE GREAT AND HIS SUCCESSORS (3) Conquests of Alexander the Great: culture and religion of Greece and Near East in the Hellenistic period. Prerequisite: HIST 101 or consent of instructor.

HIST 504 ANCIENT GREEK CIVILIZATION (3) The civilization of classical Greece, including the Minoan and Mycenaean bronze age antecedents, to 362 B.C. Prerequisite: HIST 101 or consent of instructor.

HIST 505 ROMAN CIVILIZATION (3) The civilization of ancient Rome from the foundation of the city to the collapse of the Roman Empire in the West. Prerequisite: HIST 101 or consent of instructor.

HIST 506 WOMEN IN 20TH CENTURY U.S. HISTORY (3) A multicultural perspective on politics, work, family and sexuality in women's lives in the United States from 1900 to present. Prerequisites: HIST 145, and either HIST 146 or HIST 148.

HIST 507 DEMOCRATIZATION IN LATIN AMERICA (3) Analysis of the failure and successes in building democratic political institutions in Latin America; emphasis on 1930s to present. Prerequisite: HIST 122 or permission of instructor.

HIST 508 LIFE HISTORIES OF AFRICAN WOMEN (3) Methodological analysis of lives of selected African women from diverse African cultures compared with the lives of women throughout the world. Prerequisites: 6 units from history and/or women's studies.

HIST 509 TRADITIONAL INDIA: ITS HISTORICAL DEVELOPMENT (3) Development of the history and culture of India from prehistoric times until the beginnings of European dominance in the 18th century. Prerequisite: 6 units in history or consent of instructor.

HIST 510 HISTORY OF MODERN INDIA (3) The history of the Indian subcontinent since 1750. Stressing the rise of British power, the colonial experiences, the development of nationalist movements and the problems of independence in present-day India, Pakistan and Bangladesh. Prerequisite: 6 units in history or consent of instructor.

HIST 511 HISTORY OF MODERN SOUTH-EAST ASIA (3) The development of Burma, Thailand, Malaysia, Indonesia, Cambodia, Vietnam and the Philippines since 1500, with emphasis on the colonial experience and devel-

opment of modern nationhood. Prerequisite: 6 units in history or consent of instructor.

HIST 512 IMPERIAL CHINA: THE LAST DYNASTY (3) Ching (Qing) Dynasty, 1644-1912; focus on the 19th-century collision of imperial China and the West. Prerequisite: HIST 111 or 6 units of history.

HIST 513 REVOLUTIONARY CHINA (3) The ongoing Chinese revolution from the overthrow of the imperial government through the Nationalist and Communist periods. Prerequisite: HIST 111 or 6 units in history.

HIST 514 THE ANDEAN REPUBLICS (3) Social, economic and political developments in Peru, Bolivia and Ecuador from independence to the present.

HIST 516 BRITISH HISTORY: 1760-1902 (3) Political change and transformation of British government from George III until emergence from Splendid Isolation. Explores growth of the imperial system. Prerequisite: HIST 103 or HIST 108.

HIST 517 STUART ENGLAND: 1603-1714 (3) Seventeenth-century English society, culture, politics, and religion. Topics: civil wars, Regicide, political thought, constitutionalism, politics of Caroline and Restoration culture, ideas of social order. Prerequisite: HIST 102 or consent of instructor.

HIST 519 JAPAN, 1830-1930 (3) Japan's transition from feudalism and national seclusion to emergence as a modern nation-state with an overseas empire and a parliamentary form of government. Prerequisites: HIST 110, HIST 111 or 6 units in history.

HIST 520 JAPAN, 1930-PRESENT (3) Japan's transition from militarism and foreign aggression in the 1930s to postwar pacifism, democracy and dynamic economic growth. Prerequisites: HIST 111, HIST 119 or 6 units in history.

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HIST 521 HISTORY OF MEXICO: PRECOLUMBIAN AND COLONIAL (3) The political, economic, social and cultural developments from early pre-Columbian civilizations to the movement for independence. Prerequisite: 6 units in lower-division history.

HIST 522 HISTORY OF MEXICO: NATIONAL PERIOD (3) The political, economic, social and cultural developments from independence to the present. Prerequisite: 6 units in lower-division history.

HIST 525 CONFLICT AND COOPERATION IN COLD WAR EAST ASIA (3) Cold war conflict and cooperation between China, Taiwan, North and South Korea, Japan, the Soviet Union and the United States. Prerequisites: Three units of non-Western history or the consent of the instructor.

HIST 526 GAYS AND LESBIANS IN U.S. HISTORY (3) Multicultural perspectives on gay and lesbian cultures and communities and their struggles against institutionalized homophobia in education, the military, the media, medicine, religion and government. Prerequisite: 3 units in history or women's studies, or consent of instructor.

HIST 527 EUROPEAN MILITARY HISTORY 1871-1925 (3) Minor wars of 1871-1913, the buildup to World War I, the war and its aftermath seen in the context of diplomatic, political and socioeconomic history. Prerequisite: HIST 103 or HIST 108 or consent of the instructor (not open to students who have completed HIST 413).

HIST 528 UNITED STATES AND VIETNAM 1945-1975 (3) U.S.-Vietnamese political, diplomatic and military relations from the end of World War II, to the support of France and the direct U.S. involvement. Prerequisites: HIST 146 (148), 151 or consent of instructor.

HIST 529 EUROPEAN MILITARY HISTORY 1925-1945 (3) Military institutions of the interwar period, the buildup to World War II and the European War, seen in the context

of diplomatic, political and socioeconomic history. Prerequisite: HIST 103 or HIST 108 or consent of the instructor (not open to students who have completed HIST 413).

HIST 530 (310) NATIONALISM IN 20TH CENTURY EAST AND SOUTHEAST ASIA (3) Introduction to the contentious issue of nationalism and state-building through belief case studies of China, Japan, Vietnam and Indonesia. Prerequisites: 6 units of history.

HIST 531 AMERICAN MILITARY HISTORY 1898-1945 (3) Campaigns, tactics and institutional development of the armed forces in peace and war, seen in the context of politics and diplomacy; emphasis on World War II. Prerequisite: HIST 146.

HIST 532 AMERICAN MILITARY HISTORY SINCE 1945 (3) Campaigns, tactics and institutional development of the armed forces in peace and war, seen in the context of politics and diplomacy; emphasis on Korea and Vietnam. Prerequisites: HIST 145 and HIST 146.

HIST 533 THE AMERICAN COLONIES: 1492-1763 (3) Founding and the political, economic and social development of the American colonies. Prerequisite: HIST 145 or HIST 241 or consent of instructor.

HIST 534 THE AMERICAN REVOLUTIONARY PERIOD: 1763-1789 (3) From the end of the Seven Years' War to the ratification of the Constitution. Prerequisite: HIST 145 or HIST 241 or consent of instructor.

HIST 535 THE EARLY NATIONAL PERIOD (3) The United States from the Constitutional Convention to the election of 1820; the Federalist Decade and the Jeffersonian Era. Prerequisite: HIST 145.

HIST 537 THE CIVIL WAR (3) Sectionalism, the coming of the war and the war years. Emphasis on political, economic and social issues. Prerequisite: HIST 145.

HIST 539 THE U.S. 1865-1901: AGE OF ENTERPRISE (3) Industrialization of the United States, the rise of big business and an examination of resulting problems in economic, social and political life. Prerequisites: HIST 145, and either HIST 146 or HIST 148.

HIST 540 THE U.S. 1892-1920: AGE OF REFORM (3) America's efforts to deal with the political, social and economic problems of industrial life; emphasis on the Populist movement; imperialism and the Spanish-American War; the administrations of Theodore Roosevelt, William Howard Taft and Woodrow Wilson. Prerequisites: HIST 145, and either HIST 146 or HIST 148.

HIST 541 THE F.D.R. ERA (3) History of the United States from the 1920s through World War II, with emphasis on the presidential years of Franklin D. Roosevelt. Prerequisites: HIST 145 and either HIST 146 or HIST 148.

HIST 544 SOCIAL HISTORY OF THE UNITED STATES TO 1865 (3) History of American life from the 17th century to the Civil War, focusing on problems relating to social structure, popular culture and family, and religious and educational institutions. Prerequisite: HIST 145.

HIST 545 SOCIAL HISTORY OF THE UNITED STATES SINCE 1865 (3) History of American life from the Civil War to the present, focusing on problems relating to social structure, popular culture and family, religious and educational institutions. Prerequisites: HIST 145 and either HIST 146 or HIST 148.

HIST 546 A HISTORY OF AMERICAN BUSINESS (3) A study of industry, finance, commerce and agriculture from the Civil War to the present. Prerequisites: 3 units in history and either consent of instructor or junior standing.

HIST 547 CONSTITUTIONAL HISTORY OF THE UNITED STATES TO 1863 (3) Development of American constitutionalism

in theory and practice to 1868. Prerequisites: HIST 145 and either HIST 146 or HIST 148.

HIST 548 THE BILL OF RIGHTS AND THE CONSTITUTION: 1941 TO THE PRESENT (3) Interpretation of the Bill of Rights before and after the Warren Court. Prerequisites: HIST 145 and either HIST 146 or HIST 148.

HIST 550 DIPLOMATIC HISTORY OF THE UNITED STATES SINCE 1900 (3) Continuation of HIST 369 to the present with added interest in the emergence of the United States as a major world power. The role of the United States in modern warfare, worldwide economic and financial affairs, overseas expansion, the diplomatic impact of conflict in ideologies and current international crises. Prerequisites: HIST 145 and either HIST 146 or HIST 148.

HIST 552 THE FAR WESTERN FRONTIER (3) The expansion into the trans-Mississippi West and the impact of the frontier process on the attitudes of the American people and on the social, economic and political institutions of the United States in the 19th and 20th centuries. Prerequisites: HIST 145 and either HIST 146 or HIST 148.

HIST 553 THE CITY IN AMERICAN HISTORY (3) The development of the city and its impact on American social, cultural, intellectual, political and economic life. Prerequisites: HIST 145, HIST 146 or HIST 148 or two of the following: GEOG 391, SOCI 327, POSC 305, or consent of instructor.

HIST 555 HISTORY OF NATIVE AMERICANS: THE EAST (3) Topical and regional ethnohistory of the native peoples of Eastern America and their relations with non-native peoples and governments, precontacts to the present. Prerequisite: 3 units in American history.

HIST 556 HISTORY OF NATIVE AMERICANS: THE WEST (3) Topical and regional ethnohistory of the native peoples of Western America and their relations with non-native

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peoples and governments, precontacts to the present. Prerequisite: 3 units of American history (Indian-White Relations in American History).

HIST 558 WORKERS AND WORK IN THE UNITED STATES (3) The changing nature of agricultural, domestic and industrial work; business-labor relations; labor unions and leaders; role of labor in mainstream and radical political movements. Emphasis on the late 19th and 20th centuries. Prerequisites: HIST 145 and either HIST 146 or HIST 148.

HIST 559 HISTORY OF ZANZIBAR 1500-1964 (3) History of Zanzibar from 1500 to 1964 covering the Portuguese, Omanis, Americans and Africans with subject matter ranging from economics, the slave trade and slavery, family history, colonialism, and the revolution that occurred in 1964. Prerequisites: HIST 135 and HIST 102.

HIST 560 HISTORY OF MARYLAND FROM COLONIAL TIMES TO THE PRESENT (3) Major events and forces that have shaped the political, social, cultural and economic development of Maryland. Prerequisite: 3 units in United States history.

HIST 563 AFRICAN-AMERICAN HISTORY TO THE MID-19TH CENTURY (3) Political, economic and social history of African Americans from their African origins through the antebellum period. Prerequisite: HIST 145.

HIST 564 AFRICAN-AMERICAN HISTORY FROM THE MID-19TH CENTURY (3) Political, economic and social history of African Americans from the Civil War through the civil rights era. Prerequisites: HIST 145 and either HIST 146 or HIST 148.

HIST 565 IMMIGRANTS AND IMMIGRATION IN THE U.S. (3) Comparative social, cultural and economic history of selected ethnic groups and their relationship to the dominant culture; emphasis on the late 19th and 20th centuries. Prerequisite: 3 units of U.S. history or consent of the instructor.

HIST 566 COMPARATIVE HISTORY OF THE MODERN FAMILY (3) Impact of economic, social and reproductive changes on family life and structure. Prerequisite: 3 units of history, sociology or women's studies.

HIST 567 THE EARLY MIDDLE AGES: 300-1050 (3) The rebuilding of Europe after the collapse of the Roman Empire. Emphasis on the Church Fathers, the Germanic tribes, Carolinian culture, feudalism and the Vikings. Prerequisite: HIST 102 or consent of instructor.

HIST 569 THE RENAISSANCE ERA: 1300-1500 (3) Political, economic, social and cultural changes in late medieval and Renaissance Europe. Prerequisite: HIST 102 or consent of instructor.

HIST 570 THE REFORMATION: 1500-1648 (3) Religious, political, economic and social changes in Reformation and Counter-Reformation Europe. Prerequisite: HIST 102 or consent of instructor.

HIST 576 DIPLOMATIC HISTORY OF EUROPE: 1815-1939 (3) An in-depth study of specific diplomatic crises, with emphasis on the impact of each upon the European balance of power. Prerequisite: HIST 103 or HIST 108.

HIST 577 ECONOMIC HISTORY OF EUROPE TO THE MID-18TH CENTURY (3) A study of the European economy to the middle of the 18th century. Particular attention will be given to the development of commerce, capitalism, manufacture and mercantilism. Prerequisite: HIST 102.

HIST 580 GREAT BRITAIN IN THE 20TH CENTURY (3) Political, social and economic developments in Great Britain from 1897 to the present with emphasis on social reform, the two World Wars, socialism and the Labor Party, economic decline, the dismantling of the Empire and entry into the European community. Prerequisite: HIST 103 or HIST 108.

HIST 581 FRANCE: 1763-1871 (3) Old Regime and the impact of successive revolutions upon French society. Emphasis upon the role of France in the growth of European liberalism and nationalism. Prerequisite: HIST 103 or HIST 108.

HIST 584 RUSSIA/SOVIET UNION: 1894-1953 (3) Political, ideological, economic and cultural factors influencing the fall of the monarch, the Bolshevik Revolution, Leninism and Stalinism. Prerequisite: HIST 231 or HIST 103 or HIST 108 or consent of instructor.

HIST 585 HISTORY OF SOVIET RUSSIA SINCE STALIN: 1953 TO PRESENT (3) Topical analysis of political history and theory, economic development, foreign affairs, social change, and cultural and literary trends. Prerequisite: HIST 151 or HIST 231 or HIST 108 or consent of instructor.

HIST 586 EUROPE IN THE THIRD WORLD: COLONIALISM TO CRISIS (3) The impact of modern European colonialism on the societies of the Third World, chiefly Africa and Asia. Primary emphasis on the 19th and 20th centuries. Prerequisite: HIST 103 or HIST 108 or consent of instructor.

HIST 588 THE HOLOCAUST IN HISTORICAL AND COMPARATIVE PERSPECTIVE (3) Origins, implementation and aftermath of the genocide, motivations of the perpetrators, responses of bystanders and victims' experiences. Prerequisites: 6 credits of modern European history, including HIST 103.

HIST 590 INTERPRETIVE PROBLEMS IN HISTORY (3) An in-depth study of historical interpretations of selected topics; may be repeated in a different topic for a total of 6 units. Prerequisite: 12 units in history appropriate to topic.

HIST 591 BIOGRAPHICAL STUDIES IN HISTORY (3) A study of selected historical figures who have shaped or reflected the past. Figures to be selected by the instructor; may be repeated in different historical figures for a

total of 6 units. Prerequisite: 6 units in history appropriate to topic.

HIST 592 HISTORICAL THEMES (3) A study through lectures and discussions of a historical topic selected by the instructor; may be repeated in a different topic for a total of 6 units. Prerequisite: 6 units in history appropriate to topic.

HIST 593 DIRECTED INDIVIDUAL RESEARCH (2-4) Research and reading dealing with a historical topic to be selected by the instructor and student; considerable attention to methodology; may be repeated for a total of 6 units. Prerequisites: 15 units in history, a minimum average of 3.00 in history course work and consent of instructor and department chair.

HIST 594 TRAVEL AND STUDY (3-6) Countries and topics to be selected by the departments and instructors sponsoring the program. For complete information, contact the chair of the department early in the fall of the academic year preceding the term of intended study; may be repeated in different countries and topics for a total of 6 units. Prerequisites: Upper-division status and consent of instructor.

HIST 596 COLLOQUIUM (3) Group discussion of reading in history or related disciplines approached from a viewpoint that is primarily historical and dealing with broad periods, topics, problems or comparative developments selected by the instructor(s); may be repeated in a different topic for a total of 6 units. Prerequisites: Consent of instructor and 15 units in history or 9 units in history and 6 units in the related discipline.

HIST 597 DIRECTED READING (2-4) Independent reading in history or related disciplines approached from a viewpoint that is primarily historical and dealing with specific periods, topics, problems or comparative developments selected by the student in consultation with the instructor(s); may be repeated for a total of 6 units. Prerequisites: 15

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units in history or 9 units in history and 6 units in the related discipline and a minimum average of 3.00 in history course work and the related discipline and consent of department chair.

HIST 599 THE MAKING OF THE MODERN MIDDLE EAST (3) Ethnic, political, religious and economic factors that have shaped the Middle East since 1798. Prerequisite: HIST 107 or 6 units in history or consent of instructor.

HIST 607 LATIN AMERICA AND THE UNITED STATES (3) Graduate seminar on Latin American-U.S. relations. Emphasis on the social and cultural implications of U.S. power and influence in Latin America. Comparative analysis of Latin American responses to U.S. actions. Prerequisite: Admission to graduate program.

HIST 609 MODERN THEORIES OF WAR (3) Theories of the meaning and conduct of war since the Enlightenment; emphasis on European and American thought and practice with some attention to non-Western contributions. Prerequisite: Admission to graduate program.

HIST 617 HISTORY INTERNSHIP (3) Practical experiences within the historical profession. Prerequisite: Approval of the department chair.

HIST 621 AFRICAN COLONIAL HISTORY THROUGH LITERATURE (3) Examination of aspects of colonial history in Africa south of the Sahara through African authored works, including novels, plays, short stories, poetry, and literary histories. Prerequisites: European History from 1790: Survey of African History. Graduate students only.

HIST 683 DIRECTED INDIVIDUAL RESEARCH (2-4) Research and reading with a historical topic to be selected by the instructor and student. Prerequisite: Graduate standing and 18 units of history and consent of the instructor and department chair.

HIST 684 DISEASE AND HISTORY (3) Exploration of the ways in which human diseases have affected history, with major developments in the history of epidemiology.

HIST 697 DIRECTED READING IN HISTORY (2-4) Reading in areas of history selected by the instructor and the student. Prerequisites: Graduate standing, 18 units of history, consent of the instructor and department chair.

HUMAN RESOURCE DEVELOPMENT (HRD)

HRD 601 INTRODUCTION TO HUMAN RESOURCES (3) Overview of the human resource profession, including emerging trends, professional roles and professional competencies. Prerequisite: Graduate standing in Human Resources Development Program or consent of instructor.

HRD 602 ORGANIZATIONAL BEHAVIOR (3) Theoretical and applied aspects of organizational behavior through the use of psychological concepts. Individual, group, technological and structural theory are examined in the context of organizational effectiveness. Prerequisite: Graduate standing in the Human Resource Development Program or consent of instructor.

HRD 603 MANAGING ORGANIZATIONAL CHANGE (3) An interdisciplinary study of workplace changes. Topics to be covered are: international competition, work force demographics, information technology, changing nature of work and the learning organization. Prerequisites: For general track: HRD 601, or 627, or 642. For educational leadership track: HRD 642.

HRD 605 APPLIED RESEARCH IN HUMAN RESOURCE DEVELOPMENT (3) Description, analysis and application of research methods for HRD professionals, studied in the

context of key business and organizational decision-making processes. Prerequisite: Graduate standing in the Human Resource Development Program or consent of instructor.

HRD 606 ORGANIZATIONAL BEHAVIOR (3) Theoretical and applied aspects of organizational behavior through the use of psychological concepts. Individual, group, technological and structural theory are examined in the context of organizational effectiveness. Prerequisite: Graduate standing in the Human Resource Development Program or consent of the instructor.

HRD 607 MANAGING ORGANIZATIONAL CHANGE (3) A review of the issues, methods and techniques for promoting change in work organizations, including change agent skills, organization development, interventions for change, increasing employee motivation for change, change evaluation. Prerequisites: For professional track: HRD 601 or 627 or 642.

HRD 627 TRAINING AND DEVELOPMENT (3) Study of current trends in training and human resource development applied to various types of organizational environments. Prerequisite: Graduate standing in the Human Resource Development Program or consent of instructor.

HRD 629 PERSONNEL SELECTION (3) Study of research and application of personnel planning, recruiting and selection practices within organizations. Prerequisite: Graduate standing in the Human Resource Development Program or consent of instructor.

HRD 630 COMPENSATION AND BENEFITS MANAGEMENT FOR THE HRD PROFESSIONAL (3) This course is designed to acquaint the HRD professional with the fundamental concepts, issues and techniques associated with designing, managing and evaluating compensation and benefits programs so that the HRD professional can contribute more effectively to improving organizational performance. Prerequisite: Graduate standing

in the Human Resource Development Program or consent of instructor.

HRD 640 LEADERSHIP THEORY AND PRACTICE (3) Theoretical and applied foundation of leadership concepts, principles, practices and competencies; integration of theory and practice to apply various conceptual models of leadership development within their organizations as well as create and implement their personal development plan. Prerequisite: Graduate standing in Human Resource Development Program or consent of the instructor.

HRD 643 ADMINISTRATIVE THEORY AND PRACTICE (3) This course focuses on the theories, principles, practices and effects of administrative design and theory on organizational performance. One particular point of emphasis will be to integrate classical organizational theories with contemporary issues in organizations as they relate to management and HR. Prerequisites: Graduate standing in the Human Resource Development program or consent of the instructor.

HRD 644 GROUP DYNAMICS AND TEAM BUILDING (3) Psychological and organizational aspects of group dynamics and work teams. Application of theory to actual terms in workplace. Prerequisite: Graduate standing in the Human Resource Development Program or consent of instructor.

HRD 646 CONFLICT MANAGEMENT & NEGOTIATION: THEORY AND PRACTICE (3) This course examines the nature and effects of conflict in organizations and relationships at the workplace. Students are taught how to make conflict and negotiation productive and constructive. Students learn theories supporting effective conflict management, strategies and tactics for use and resolution; and the practice of conflict resolution, negotiation and mediation methods. Prerequisites: Graduate standing in HRD graduate program or consent of the instructor.

HRD 650 WELLNESS IN THE WORKPLACE Theories, principles, practices and

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effects of wellness programs in the workplace; concepts and theories related to workplace health, wellness and safety issues in the context of Human Resource Development practices; methods for assessing and developing employee wellness programs. Prerequisite: 6 units in HRD Graduate program courses. Prerequisites: Graduate standing in HRD Graduate Program and completion of 6 units in HRD course work.

HRD 679 SPECIAL TOPICS IN HUMAN RESOURCE DEVELOPMENT (3) Topics vary according to the instructor. May be repeated for a maximum of 9 units. Prerequisite: Graduate standing in HRD program or consent of instructor.

HRD 695 INDEPENDENT STUDY OR INTERNSHIP IN HRD (3) Individual and supervised study or project development in selected areas of human resource development.

HRD 696 INTERNSHIP IN HUMAN RESOURCE DEVELOPMENT (3) Technical and professional level work experience on an internship basis with private or public organization, work to be concerned with issues central to the practice of human resources. May be repeated for a maximum of 6 credits. Prerequisites: Admission to HRD Graduate Program, 28 units completed HRD course work, or consent of program director.

HRD 699 CAPSTONE IN HUMAN RESOURCE DEVELOPMENT (3) Applies previous learning to a wide variety of projects and case studies of problems and issues found in the realm of human resource development practice. Emphasizes analysis and interventions to improve and change organizational performance. Prerequisites: Graduate standing in HRD graduate program and completion of 27 units in HRD course work.

HUMANITIES (HUMA)

HUMA 601 WAR IN LITERATURE (3) Examination of Western war and literature in

the classical, medieval, Renaissance and modern periods. Prerequisite: Bachelor's degree.

HUMA 602 LITERATURE OF EMPIRE (3) Analysis of imperial literature in classical, medieval, Renaissance and modern times. Prerequisite: Bachelor's degree.

HUMA 603 DISEASE, HEALTH AND HEALING IN WESTERN LITERATURE (3) Changing literary representation of disease, the infirm, and the healer from ancient times to the present. Prerequisite: Bachelor's degree.

HUMA 604 LOVE IN LITERATURE (3) Study of love in Western literature in classical, medieval, Renaissance and modern texts. Prerequisite: Bachelor's degree.

HUMA 606 THE SYMPOSIUM (3) Analysis of texts of the ancient, medieval, Renaissance and modern eras, which explore issues through fictionalized, civil conversation. Prerequisite: Bachelor's degree.

HUMA 611 RHETORIC: THE PURSUIT OF ELOQUENCE (3) Concepts of rhetoric, from classical to contemporary, which have shaped persuasive and expository writing. Not open to students who have successfully completed PRWR 611 or WRIT 611. Prerequisite: Bachelor's degree.

HUMA 616 THE HUMAN (3) Analysis of changing concepts on the nature of being human through a reading of classical, medieval, Renaissance and modern texts. Prerequisite: Bachelor's degree.

HUMA 631 HISTORY OF HISTORICAL THOUGHT (3) Philosophies of history from ancient to modern. Prerequisite: Bachelor's degree.

HUMA 632 VISIONS OF HISTORY AND OF HUMAN NATURE (3) Visions and themes of history in ancient, medieval, Renaissance, and modern texts. Prerequisite: Bachelor's degree.

HUMA 633 COMPARATIVE BIOGRAPHY: THE PURSUIT OF HUMAN PERFECTION (3) How does the human life strive for perfection—whether spiritual, military, political, aesthetic or intellectual—and how do historians strive to shape those human lives into perfect biographies? Text will include readings from the classical through the modern periods. Prerequisite: Bachelor's degree.

HUMA 634 THE TRAVELER IN HISTORY (3) Analysis of travel accounts and their role in Western intellectual debates about natural and cultural diversity. Prerequisite: Bachelor's degree.

HUMA 701 RELIGIOUS CURRENTS IN AMERICAN LITERATURE (3) Religious currents in American Literature from the 17th century to the present. Prerequisite: Bachelor's degree.

HUMA 702 THE GOLDEN AGE OF ENGLISH SATIRE (3) Study of English satire of the 18th century in its intellectual, social and political contexts. Authors studied include Dryden, Swift, Pope, Fielding, Johnson and Austen. Prerequisite: Bachelor's degree.

HUMA 750 MASTER AUTHORS (3) Study of a classic author of history, fine arts, literature, philosophy, religion or rhetoric. May be repeated for a maximum of 6 units. Prerequisite: Bachelor's degree.

HUMA 751 MASTERWORKS SEMINAR (3) Intensive study of a classic book of history, fine arts, literature, philosophy, politics, religion or rhetoric. May be repeated for a maximum of 6 units. Prerequisite: Bachelor's degree.

HUMA 752 MASTER THEMES SEMINAR (3) Study of a major theme of Western Civilization in fine arts, history, literature, philosophy, religion or rhetoric. May be repeated under a different subtitle for a maximum of 6 units. Prerequisite: Bachelor's degree.

HUMA 897 THESIS (6) Mentored and defended monograph in one of the following disciplines: art history, history, literature, philosophy, religion, or rhetoric. Prerequisites: Bachelor's degree, approval of director and successful proposal review.

HUMA 898 THESIS (3) The previous course taken over two terms. Prerequisites: Bachelor's degree, approval of director and successful proposal review.

HUMA 899 THESIS CONTINUUM (1) Continuation of thesis beyond initial 6 units. Prerequisites: HUMA 897 or 898 for 6 units.

INFORMATION SYSTEMS (INSS)

These courses are part of the UB/Towson MBA program.

INSS 640 INFORMATION TECHNOLOGY FOR BUSINESS TRANSFORMATION (3) This course provides a perspective on the strategic power of information systems and technology to enhance business intelligence, create value, and radically transform business or entire industries. The key enabling role of information in networked organizations with critical linkages among partners, suppliers, distributors, and customers is explored. Key technologies and applications including business intelligence, data mining, business process redesign, and enterprise systems are covered. Issues such as data quality, aligning IT and business strategy, infrastructure reliability and security, the ethical usage of IT, sustainability and global sourcing are also discussed. Topics explored include information support for business processes and management activities, databases, data warehouses and data quality; Internet applications including e-commerce, m-commerce and Web services; infrastructure technologies such as telecommunications and networking; enterprise applications such as ERP and CRM, systems development, integration and management; and global issues such as off shoring and infrastructure security. Prerequisites: completion of at least four of the funda-

mental courses; computer literacy; and word processing and spreadsheet competencies.

INSS 641 LEADERSHIP OF THE IT FUNCTION (3) Focuses on the role of the chief information officer. Today's CIO proactively assesses and balances the organization's technological and business environment in a partnership with the CEO. Topics include structure of the IT function, planning and measuring IT-business alignment, enterprise architecture, systems integration, applications portfolio, project planning and management, systems development and implementation, change management, insourcing, outsourcing, vendor management, operations and control management, IT human resource management and legal and ethical issues. Various facets of the CIO's role are explored through published case studies of real organizations. Background readings will be assigned as preparatory work for class-based case discussions. Prerequisite: INSS 640.

INSS 650 NETWORKING AND TELECOMMUNICATIONS (3) Provides a solid understanding of fundamentals as well as the state-of-the-art of networks and telecommunications used in business. Topics include communications layers and architectures, physical and data link layer, network and transport layer, local area networks (LANs), local internets, wireless LANs, backbone networks, virtual LANs, collapsed backbones, telephone service, voice-over IP, wide area networks, packet-switching concepts, frame relay, ATM, VPN, Internet infrastructure (NAPs, MAEs and backbone), network management and infrastructure security. This course focuses on the TCP/IP architecture, but the OSI model is presented and discussed. It also covers Microsoft Windows networking TCP/IP concepts including architecture, fixed and dynamic IP addresses, subnet mask calculation, NetBIOS Resolution, IP routing and resolution, and DHCP and DNS services. Prerequisite: INSS 640.

INSS 651 DATABASE MANAGEMENT SYSTEMS (3) Examines the theories and con-

cepts employed in database management systems (DBMS) and the efficiencies and economics of such systems. The course specifically addresses steps in the database cycle including normalization, database design, implementation, and developing queries using SQL. The functions of various types of DBMS are described, including their purpose, advantages, disadvantages and applications in business. Data administration, data requirements for ERP systems and data security issues are also covered. Prerequisite: INSS 640.

INSS 671 SYSTEMS ANALYSIS (3) Introduces students to key principles and techniques used to develop or modify information systems to support business undertakings. The emphasis is on the determination and modeling of the requirements of information systems and software. Topics include business process reengineering and the modeling of business processes, data modeling, data gathering and requirements specification, interface design and the development of systems prototypes, including electronic forms and reports. Students will gain experience with leading industry development tools such as those from Oracle and Peoplesoft. Prerequisite: computer literacy and word processing, spreadsheet and database competencies.

INSS 701 INTERNET DEVELOPMENT FOR BUSINESS (3) Covers the issues involved with managing an organization's Web site. Issues include content management, scalability, security, reliability and usability. Topics will include tools and techniques for developing and managing large-scale Web sites, such as Dreamweaver, Cold Fusion and XML. Prerequisite: Graduate status and computer, browser and network literacy.

INSS 737 STRATEGIC MANAGEMENT OF INFORMATION TECHNOLOGY (3) Information systems strategy and management from a top management perspective. Information technology is an integral part of most products and services of the post-industrial society of the 21st century and has changed the top management job. Topics include busi-

ness models and organization forms in the information age, IT as a business enabler, IT and competitive strategy, information for management control, analysis and redesign of business structure and processes, knowledge management and information networks, inter-organizational networks, sourcing strategies, interfacing with the IT function, reliability and security, and ethical and policy issues. The course relies extensively on the case method and students will supplement their analyses with current information obtained from the Web or directly from the firms under study in the cases. Prerequisite: INSS 640.

INSS 738 ADVANCED DATABASE SYSTEMS (3) Examines current trends and major issues in databases, including data warehousing, data mining, data quality, data stewardship, Web-based systems and object-oriented, distributed and Enterprise-wide systems. This course will use software systems like Oracle and PeopleSoft to demonstrate some of these concepts. Prerequisite: INSS 651.

INSS 739 SYSTEMS ARCHITECTURE (3) Covers the process and techniques used in the design and implementation of information systems. The emphasis is on systems architecture and the integration of new systems into an existing infrastructure. Topics include types of system architecture, large-scale system design including middleware and software components, database design and integration. Prerequisite: INSS 671.

INSS 740 INTRODUCTION TO SECURITY MANAGEMENT (3) This course is an overview of principles and issues in business and organizational security management. Students examine the challenges embodied in various aspects of security such as personnel, facility and information. Principles of loss prevention and the protection of assets are examined. Students employ the use of situational analyses, case studies and other research-oriented approaches. Prerequisite: Graduate standing.

INSS 741 INFORMATION SECURITY MANAGEMENT (3) This course is a managerial view of information security. It provides brief hands on experience with technical aspects of security, but it concentrates on planning, risk management, development, specifications, and informal, cultural and legal aspects of information security management. Prerequisites: Graduate standing and INSS 640.

INSS 742 DATA MINING FOR STRATEGIC ADVANTAGE (3) This course is an overview of data mining and how these techniques can be used to predict behavior patterns. It emphasizes both theoretical and practical understanding related to pattern recognitions, trend, predictions, categorization and exploration used in data mining. Understanding of security, ethical and legal issues related to data mining are examined. Applications of data mining tools in business security, marketing and government are presented. Students employ the use of situational analysis, case studies, and research oriented approaches. Prerequisite: Graduate standing.

INSS 751 OPERATING SYSTEMS (3) Provides a solid understanding of modern operating systems (OS) concepts and trends—distributed computing, parallel architecture and open systems. Topics include kernel, process and threads, concurrency and deadlock, scheduling, memory management, storage area network (SAN), network attached storage (NAT), disk performance, redundant array of independent disks (RAID), file systems, symmetric multiprocessing (SMP), clusters, middleware, distributed processing and client/server and OS security. Microsoft Windows and Linux basic concepts including overview at both the graphical user interface and command prompt levels, basic tools to manage applications and processes, devices, services, users, drives and partitions, virtual memory (swap files), networking and security. This is a project-oriented course, offering hands-on experience in both Windows and Linux. Prerequisite: INSS 640.

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INSS 752 WEB SERVER MANAGEMENT AND CGI PROGRAMMING (3) Provides an understanding of Web server installation, setup and management (particularly Apache and IIS); developing interactive, server-based, applications with the Web Common Gateway Interface (CGI), Active Server Pages (ASP) or PHP; and applications manipulating databases on the Web (particularly MySQL). Topics include HTML and forms review, Apache and IIS Web Server, CGI specifications, Practical Extraction and Report Language (Perl) scripts syntax, commands and CGI libraries, creating and porting CGI scripts, installation and use of MySQL database server, Perl DBI and MySQL, integrating Apache and MySQL, ASP and PHP concepts. Prerequisite: INSS 651 and INSS 701.

INSS 753 INTERNET AND NETWORK SECURITY (3) Familiarizes students with basic security threats on networks connected to the Internet, basic tools to provide user and system security and security resources available on the Internet. The main focus is on digital and infrastructure security. Topics include security framework overview, footprinting, scanning, enumeration, hacking framework, backdoor servers and Trojans, rootkits, Windows (98/NT, 2000/XP) and Linux vulnerabilities, dial-up, VPN and network devices vulnerabilities, firewalls, Intrusion Detection System (IDS), Denial of Service (DoS) and DDoS, buffer overflows, spyware, phishing, social engineering and protecting the Web end-user. This is a project-oriented course using a restricted-access UB lab to practice the use of hacking and security tools. Prerequisites: INSS 650 and INSS 751 or permission of instructor.

INSS 761 DECISION SUPPORT SYSTEMS (3) Covers human resource management issues including legal considerations, recruiting, selection, performance appraisal, development and health and safety. It will also cover strategic compensation issues including job evaluation, benefits administration and pay determination strategies. Additional emphasis

will be placed on workforce diversity, international dimensions and ethical consideration. Prerequisite: Graduate standing.

INSS 765 E-COMMERCE TECHNOLOGIES AND APPLICATIONS (3) Provides a managerial and technical perspective on e-commerce applications. The emphasis is on the operational, tactical and strategic applications of ecommerce and the major technologies involved in their development. Covers the different types of e-commerce, the technologies and techniques involved and the major issues facing organizations conducting electronic commerce. Managerial topics include mobile commerce; business, consumer and government ecommerce uses; and legal and regulatory issues. Technical topics explored include network infrastructure, ecommerce security and data representation, transformation, and exchange technologies such as XML. Prerequisite: INSS 640.

INSS 784 PROJECT MANAGEMENT (3) Strong project management is key to a successful IT project. This course examines the principal elements in effective project management as well as tools and techniques for managing the process. Topics include stakeholder analysis, project design and organization, estimating and budgeting, scheduling, identifying and managing risk, project communications and project metrics and control. Prerequisite: INSS 640.

INSS 789 INFORMATION SYSTEMS CAPSTONE PROJECT (3) A field-study project capstone course. Student teams undertake an information systems project in the public or private sector with little supervision by faculty advisers. Project management by each team is an integral part of the course experience. A project proposal—including scope, milestones and deliverables—is developed at the beginning of the course. Progress reports and a final oral and written presentation complete the project management experience. Projects focus on one aspect of IS, such as systems analysis and design, database systems, telecommunica-

tions, e-commerce, security or management. Students are evaluated by the team deliverables and by the individual contribution to the final project deliverables. This course should be taken in the final term of the student's program. Prerequisite: All required M.S. in MIS core courses or permission of instructor.

INSS 797 ADVANCED TOPICS IN INFORMATION SYSTEMS (3) Exploration of advanced topics in information systems of interest to faculty and students. Prerequisites and topics are selected and printed in the schedule of classes.

INSS 799 INDIVIDUAL RESEARCH: INFORMATION SYSTEMS (1-3) Prerequisite: approvals of instructor and chair of Department of Management Information Systems.

INSTRUCTIONAL LEADERSHIP AND PROFESSIONAL DEVELOPMENT

ILPD 603 SCHOOL LAW (3) Addresses the legal framework within the public and non-public school. The course gives attention to the legal relationships among federal, state and local governments; the legal status of school districts, boards of education and school administrators; the legal status of nonpublic schools; and the law regarding all facets of the school program, staff and pupils. The course addresses several sets of state and national standards: the Interstate School Leaders Licensure Consortium (ISLLC), the Educational Leadership Constituent Council (ELCC), Maryland Instructional Leadership Framework (MILF), Technology Standards for School Administrators (TSSA) Prerequisite: Student teaching or teaching experience.

ILPD 614 CLASSROOM ASSESSMENT FOR INSTRUCTIONAL LEADERS (3) This course focuses on understanding and applying current research-based principles of assessment design, and strategically using formative and summative assessment results to support student and teacher growth. This course

approach models best practices in professional learning community development. Prerequisites: None.

ILPD 667 CURRICULUM AND ASSESSMENT (3) Examines the historical, philosophical and psychological foundations of the school curriculum from an administrative/supervisory perspective. Students will determine some of the basic forces affecting curriculum development, examine its patterns of organization, identify school practices in curricular development and assessment, and review state and system curricular outcomes. Students will formulate and articulate their own curricular theories (orientations) and views related to current trends and practices. The course addresses several sets of state and national standards: the Interstate School Leaders Licensure Consortium (ISLLC), the Educational Leadership Constituent Council (ELCC), Maryland Instructional Leadership Framework (MILF), Technology Standards for School Administrators. Prerequisite: Graduate Standing.

ILPD 668 LEADERSHIP AND GROUP DYNAMICS (3) Designed to provide students with essential knowledge, skills and competencies needed to be an instructional leader. The content focuses on group participation and effective communication for increasing self-image, developing strategies for building and maintaining trust, developing skills for dealing with difficult situations, and developing techniques for creating learning communities. The course addresses several sets of state and national standards: the Interstate School Leaders Licensure Consortium (ISLLC), the Educational Leadership Constituent Council (ELCC), Maryland Instructional Leadership Framework (MILF), Technology Standards for School Administrators (TSSA) and the National Staff Development Council (NSDC) Prerequisite: Graduate standing.

ILPD 670-674 SPECIAL TOPICS IN INSTRUCTIONAL LEADERSHIP (3) In-depth study of a selected topic in Instructional Leadership. The specific requirements and

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prerequisites will vary with each topic and will be designated by the department each time a topic is scheduled. Approval by the program director is required. Each topic may be taken as a separate course.

ILPD 716 LEADERSHIP OF SCHOOLS (3)

Designed to investigate change and change theory in relationship to the administrators' roles and responsibilities. This course focuses on the development of vision and mission in providing direction for the leadership of the school program and curriculum, and development of policy, procedures, and guiding principles of school administration. The course addresses several sets of state and national standards: the Interstate School Leaders Licensure Consortium (ISLLC), the Educational Leadership Constituent Council (ELCC), Maryland Instructional Leadership Framework (MILF), Technology Standards for School Administrators (TSSA), and the National Staff Development Council (NSDC) Prerequisite: Graduate standing.

ILPD 740 DATA-BASED DECISION MAKING FOR CURRICULUM AND INSTRUCTION (3)

Considers how to collect, analyze and use a variety of classroom, school-based, state, and national trend data to measure program effectiveness and guide curricular revisions. The course addresses several sets of state and national standards: the Educational Leadership Constituent Council (ELCC), Maryland Instructional Leadership Framework (MILF), Technology Standards for School Administrators (TSSA), and the National Staff Development Council (NSDC) Prerequisite: Graduate standing. Prerequisites: ECED 665, ELED 665, SCED 741 or equivalent.

ILPD 741 SEMINAR IN LIABILITY FOR PROFESSIONALS IN EDUCATION (3)

In-depth discussions of a variety of emerging legal cases appropriate to liability among professionals in education. Emphasis will be given to such topics as: negligence, duty, abrogation of duty, foreseeability, loco parentis, sovereign immunity, suspension and expulsion, professional negotiations, evaluations and student

rights and responsibilities addressed through the Educational Leadership Constituent Council (ELCC), Maryland Instructional Leadership Framework (MILF), Technology Standards for School Administrators (TSSA), and the National Staff Development Council (NSDC) Prerequisite: Graduate standing. Prerequisite: One course in school law.

ILPD 742 TRANSFORMATIONAL LEADERSHIP AND PROFESSIONAL DEVELOPMENT (3)

Addresses the basic considerations affecting professional development at the school and district level, examines patterns of organization and identifies successful school practices. Students formulate and articulate their own beliefs in relation to current trends and make correlations to standards addressed through the the Educational Leadership Constituent Council (ELCC), Maryland Instructional Leadership Framework (MILF), Technology Standards for School Administrators (TSSA), and the National Staff Development Council (NSDC) Prerequisite: Graduate standing.

ILPD 743 LEARNING COMMUNITIES AND ORGANIZATIONAL CHANGE (3)

Theoretical underpinnings of individual and organizational learning in an era of rapid change, with emphasis on leaders' roles in shaping schools and districts into learning communities in which stakeholders share values and norms and engage in ongoing selective dialogue and collaboration to improve teaching and increase student learning. The course addresses several sets of state and national standards the Educational Leadership Constituent Council (ELCC), Maryland Instructional Leadership Framework (MILF), Technology Standards for School Administrators (TSSA), and the National Staff Development Council (NSDC) Prerequisite: Graduate standing.

ILPD 744 INTERPERSONAL RELATIONS AND GROUP DYNAMICS: THEORY, RESEARCH AND APPLICATION (3)

Addresses theoretical and applied foundation of concepts, principles, practices and compe-

tencies related to understanding group dynamics and interpersonal relations; integration of theory and practice to apply various conceptual models of group behavior to educational and organizational settings; self-awareness and development to improve interpersonal relations addressed through the standards of the Educational Leadership Constituent Council (ELCC), Maryland Instructional Leadership Framework (MILF), Technology Standards for School Administrators (TSSA), and the National Staff Development Council (NSDC) Prerequisite: Advanced graduate standing in Educational Leadership Program or consent of instructor.

ILPD 745 SCHOOL BUDGETING AND FISCAL PLANNING (3) Development of a budget on departmental, local school, system-wide and state levels; implementation and evaluation of budgets; long- and short-term fiscal planning. The course addresses several sets of state and national standards: the Interstate School Leaders Licensure Consortium (ISLLC), the Educational Leadership Constituent Council (ELCC), Maryland Instructional Leadership Framework (MILF), and Technology Standards for School Administrators (TSSA). Prerequisite: One course in administration.

ILPD 781 SEMINAR IN SUPERVISION (3) Examines the role of the instructional leader in the schools, as well as explores some of the basic considerations affecting supervisory practices and techniques needed for improving classroom instruction and student performance. Students in this course learn to use mission and vision for determining effective teaching and learning. The course addresses several sets of state and national standards: the Interstate School Leaders Licensure Consortium (ISLLC), the Educational Leadership Constituent Council (ELCC), Maryland Instructional Leadership Framework (MILF), Technology Standards for School Administrators (TSSA), and the National Staff Development Council (NSDC) Prerequisite: Graduate standing.

ILPD 797 INTERNSHIP IN EDUCATIONAL LEADERSHIP (3) Designed as a 300-hour collaborative experience involving the school systems, the university, and the candidates in practical applications of the knowledge, skills, and dispositions needed to be successful as emerging instructional leaders. In the internship, candidates enrolled in a formal program for Administrator I Certification are required to interact in multiple educational settings and situations and demonstrate understanding of instructional leadership acquired throughout the professional program. Candidates must have completed a minimum of 30 units of graduate course work, passed the comprehensive examination, and have consent of the program adviser to participate in the internship. The internship addresses several sets of state and national standards: the Educational Leadership Constituent Council (ELCC), Maryland Instructional Leadership Framework (MILF), Technology Standards for School Administrators (TSSA).

INSTRUCTIONAL TECHNOLOGY (ISTC)

ISTC 501 INTEGRATING INSTRUCTIONAL TECHNOLOGY (3) Materials, devices, techniques and settings are presented in an overview of the field of instructional technology.

ISTC 541 FOUNDATIONS OF INSTRUCTIONAL TECHNOLOGY (3) This introductory course provides an overview of the field of instructional technology. This course focuses on helping students develop an awareness and understanding of the theories and philosophies driving the field. In addition, this course will explore common computer-related technologies used within most learning environments. Prerequisite: Acceptance into the Graduate School.

ISTC 553 INSTRUCTIONAL PHOTOGRAPHY (3) This course explores the use of film-based and digital photography for education and training. The application of visual theory

principles, review of basic photographic techniques, photo editing in a digital environment and instructional design competencies will be emphasized.

ISTC 601 SCHOOL LIBRARY MEDIA ADMINISTRATION (3) The evaluation, planning, and policy development for the school library media center. Prerequisites: Graduate standing and completion of all level-one and level-two school library media courses.

ISTC 605 WEB-BASED INSTRUCTION IN EDUCATION (3) Principles of Web-based instruction in creating learning environments. Pedagogical, technological, organizational, institutional and ethical issues related to design, development and delivery. Prerequisite: ISTC 541 or equivalent.

ISTC 615 COLLECTION DEVELOPMENT (3) Concepts, processes, guidelines and resources for the development of a high quality school library media center collection. Prerequisite: Graduate standing.

ISTC 633 INSTRUCTIONAL VIDEO (3) This course explores the design and production of video for education training. The emphasis on the instructional systems design process is supported by laboratory tasks that lead students through the process of producing instructional video. Computer-based editing is used. Prerequisite: Bachelor's degree.

ISTC 635 THEORY AND DESIGN OF COMPUTER-BASED INSTRUCTION (3) This advanced course investigates several theoretical strategies appropriate to the development of CBI. A variety of educational and training environments are explored in the context of the Instructional Systems Design process. A laboratory task enables students to use the more complex functions of an authoring system. Prerequisite: ISTC 687.

ISTC 651 INFORMATION LITERACY AND ACCESS (3) Access and evaluation of information sources relevant to school library media centers. Prerequisites: Graduate stand-

ing and completion of level one school library media courses.

ISTC 653 THE ORGANIZATION OF KNOWLEDGE (3) The organization of knowledge in all formats including cataloging, subject analysis and bibliographic control. Prerequisite: Graduate standing.

ISTC 655 MULTIMEDIA DESIGN (3) This course gives an introduction and overview to digital media (multimedia) in instructional settings. A laboratory task enables students to develop original media, gather and edit digital media assets, integrate their products into a computer presentation program and output their results in a variety of digital and analog media formats.

ISTC 663 APPLIED PSYCHOLOGY OF LEARNING (3) Behaviorist, cognitivist and constructivist learning theories are discussed. Emphasis is on the application of those theories to instruction. Prerequisite: ISTC 541 or equivalent.

ISTC 667 INSTRUCTIONAL DEVELOPMENT (3) Overview and application of the instruction systems approach for problem solving and the design of instruction. Media selection, needs assessment, prototyping, implementation and evaluation of instructional systems.

ISTC 671 ADVANCED REFERENCE (3) Bibliographic research for the retrieval of information using manual and automated information delivery system techniques. Prerequisite: ISTC 471 or equivalent.

ISTC 673 INSTRUCTIONAL FACILITIES DESIGN (3) A systems approach to the integration of media and facilities into a unit to fulfill instructional training goals. Time and sequential phasing relationships. Prerequisite: Three ISTC courses above the 500 level.

ISTC 674-679 SPECIAL TOPICS IN INSTRUCTIONAL TECHNOLOGIES (3-6) Topics selected from the instructional technology field which are innovative and of immedi-

ate concern to existing instructional needs.
Prerequisite: Bachelor's degree; may be repeated to a maximum of 6 units with no topic repeated.

ISTC 685 RESEARCH IN INSTRUCTIONAL TECHNOLOGY (3) Students write a research proposal and concentrate on elements of a research study, inferential statistics and research in the field of instructional technology. **Prerequisite:** 12 units of ISTC courses at 600-700 level.

ISTC 687 COMPUTER-BASED INSTRUCTION (3) The relationship between programmed instruction and computer-assisted instruction is examined. Students are required to demonstrate competencies in the design and production of computer-assisted instruction. **Prerequisite:** ISTC 541 or equivalent.

ISTC 689 THEORY AND DESIGN COMPUTER-BASED INSTRUCTION (3) This advanced course investigates several theoretical strategies appropriate to the development of CBI. A variety of educational and training environments are explored in the context of the Instructional Systems Design process. A laboratory task enables students to use the more complex functions of an authoring system. **Prerequisite:** ISTC 687.

ISTC 690 DATABASE APPLICATIONS FOR SCHOOL LIBRARY MEDIA CENTERS (3) Theories and applications of educational information system development, including database design and implementation and basis of graphical user interface (GUI) programming, with emphasis upon database applications for school library systems and administrative management. **Prerequisite:** ISTC 541/441 or ISTC 301/501 or equivalent.

ISTC 691 DIRECTED READINGS IN INSTRUCTIONAL TECHNOLOGY (1-4) Independent readings and research in selected areas of instructional technology. **Prerequisite:** Consent of program director.

ISTC 692 DIRECTED READINGS IN INSTRUCTIONAL TECHNOLOGY (1-4)

Independent readings and research in selected areas of instructional technology. May be repeated for a maximum of 4 units. **Prerequisite:** Consent of program director.

ISTC 693 DIRECTED READINGS IN INSTRUCTIONAL TECHNOLOGY (1-4) Independent readings and research in selected areas of instructional technology. May be repeated for a maximum of 4 units. **Prerequisite:** Consent of program director.

ISTC 694 DIRECTED READINGS IN INSTRUCTIONAL TECHNOLOGY (1-4) Independent readings and research in selected areas of instructional technology. May be repeated for a maximum of 4 units. **Prerequisite:** Consent of program director.

ISTC 695 INDEPENDENT STUDY IN INSTRUCTIONAL TECHNOLOGY (1-4) Individual and supervised study of research problems and special projects in specific areas of instructional technology. **Prerequisite:** Consent of chair or instructor.

ISTC 700 ASSESSMENT IN INSTRUCTIONAL TECHNOLOGY (3) Contemporary theories and methodologies of assessment in instructional technology, including terminology and concepts, measurement principles and assessment instruments, with emphasis upon assessment of technology learning, technology integration, technology attitudes, performance, educational software designs and management of technology resource. **Prerequisites:** Admission to doctoral program or completion of Master's Level I: Core Sequence (ISTC 541, EDUC 605, ISTC 663, ISTC 667)

ISTC 702 EDUCATIONAL LEADERSHIP AND TECHNOLOGY (3) Explores current research and theory related to technology policy, planning and leadership in education settings. Focus will include development of technology plans at the school district and state levels. **Prerequisites:** Admission to doctoral program or completion of Master's Level I: Core Sequence (ISTC 541, EDUC 605, ISTC 663, ISTC 667)

ISTC 705 ADVANCED WEB APPLICATIONS IN EDUCATION (3) This course includes contemporary theories, methodologies and advanced techniques of using Web applications in the field of education and related disciplines. Course covers application of using scripting language to produce dynamic Web pages for educational purposes. Current Web design software and graphing tools will be used. An online learning environment using course management tools will be developed. Prerequisites: Admission to doctoral program or completion of Master's Level I: Core Sequence (ISTC 541, EDUC 605, ISTC 663, ISTC 667)

ISTC 707 LEARNING ENVIRONMENTS IN A DIGITAL AGE (3) Contemporary learning theory will be used to design and evaluate interactive learning environments that reflect the qualities of active, constructive, collaborative, intentional, complex, contextual, conversational and reflective learning. Prerequisites: Admission to doctoral program or completion of Master's Level I: Core Sequence (ISTC 541, EDUC 605, ISTC 663, ISTC 667)

ISTC 709 LEGAL AND ETHICAL ISSUES IN INSTRUCTIONAL TECHNOLOGY (3) Legal, ethical and intellectual property issues related to the use of technology in education. Analysis of case studies related to technology use policies for education and human resource organizations. Prerequisites: Admission to doctoral program or completion of Master's Level I: Core Sequence (ISTC 541, EDUC 605, ISTC 663, ISTC 667)

ISTC 711 INNOVATION, CHANGE AND ORGANIZATIONAL STRUCTURES (3) Study of the interconnected and diverse forces of technological innovation that impact learning organizations and the change process. Prerequisites: Admission to doctoral program or completion of Master's Level I: Core Sequence (ISTC 541, EDUC 605, ISTC 663, ISTC 667)

ISTC 717 DISTANCE EDUCATION IN THEORY AND PRACTICE (3) Relevant concepts and issues in distance education

including theoretical foundations, existing institutions and concepts and current practice. Prerequisites: Admission to doctoral program or completion of Master's Level I: Core Sequence (ISTC 541, EDUC 605, ISTC 663, ISTC 667)

ISTC 718 CRITICAL PERSPECTIVES OF TECHNOLOGY IN EDUCATION (3) A reflective view of the moral, historical, social and political views of technology in education. Students will examine technology's impact on the discipline of teaching as well as technology's broader impact on society. The content to be covered by this course will not overlap with any other courses currently offered by the College of Education. Prerequisites: Admission to doctoral program or completion of Master's Level I: Core Sequence (ISTC 541, EDUC 605, ISTC 663, ISTC 667)

ISTC 731 THEORY AND PRACTICE FOR INTEGRATING DIGITAL RESOURCES INTO LEARNING AND TEACHING (3) This course focuses on current theoretical perspectives on learning that underlies decisions about technology integration in diverse educational settings. Students will examine recent technological innovations surrounding technology integration for teaching and learning; analyze effective design of computer-based instructional materials; create and evaluate case studies relating to technology integration, and critically examine their own personal and professional values as an aspect of their work as educator and instruction designers. Prerequisites: 12 units of ISTC courses at 600-700 level.

ISTC 741 RESEARCH FOUNDATIONS OF INSTRUCTIONAL TECHNOLOGY (3) This seminar course will focus on examining philosophies and discourse upon which the field of instructional technology is built. This course will examine historical research, organizational and governmental standards, alternative and critical theories, and paradigms and philosophies of learning, design and technology. Prerequisites: Admission to doctoral program or completion of Master's Level I: Core Sequence (ISTC 541, EDUC 605, ISTC 663, ISTC 667)

ISTC 767 ADVANCED THEORY AND INSTRUCTIONAL DESIGN (3) This course is designed to extend the student's understanding of instructional design to include advanced models, non-linear models, advanced assessment and evaluation techniques, and to provide a glimpse of instructional design in the years to come. A comprehensive course project will be completed using such techniques and theories. This course does not overlap with any existing course. Prerequisites: Admission to doctoral program or completion of Master's Level I: Core Sequence (ISTC 541, EDUC 605, ISTC 663, ISTC 667)

ISTC 780 INVESTIGATING AND EVALUATING RESEARCH IN ISTC (3) This seminar course will focus on a critical review and evaluation of current research findings and methodology. The emphasis is upon the development of critical perspective of ongoing research in the field of instructional technology and related specialization areas. The intent of the course is that doctoral students will develop a review of literature related to their dissertation proposal. Prerequisites: Completion of core courses in the ISTC doctoral program.

ISTC 782 INVESTIGATED AND EVALUATING RESEARCH IN ISTC II (3) This seminar course will focus on a critical review and evaluation of current research findings and methodology. The emphasis is upon the development of critical perspective of ongoing research in the field of instructional technology and related specialization areas. The intent of this course is that doctoral student will develop products related to their dissertation proposal. This course may be repeated for a maximum of 3 units. Prerequisite: ISTC 780.

ISTC 787 INSTRUCTIONAL TECHNOLOGY CAPSTONE (3) Provides students the opportunity to demonstrate mastery of required course work in the Instructional Technology program. Proposal and completion of a comprehensive technology-intensive project. Prerequisite: Completed 21 units in ISTC program.

ISTC 789 PRACTICUM AND PORTFOLIO IN SCHOOL LIBRARY MEDIA (3-6) Students serve under the supervision of a school library media center director. Students present graduate portfolios to level one students and faculty in school library media. Prerequisite: Completion of all level-one and level-two school library media courses.

ISTC 797 GRADUATE INTERNSHIP IN INSTRUCTIONAL TECHNOLOGY (3) Project under the direction of a faculty adviser. The course may be taken twice for credit. Prerequisites: Admission to doctoral program or Completed 21 units in ISTC Masters program.

ISTC 897 MASTER'S THESIS IN INSTRUCTIONAL TECHNOLOGY (6) An original investigation, using research method and design, of a research problem. Credit granted after thesis accepted. Prerequisite: Consent of chair.

ISTC 898 THESIS (3) Continuing work on thesis after completion of basic thesis units. May be repeated as necessary.

ISTC 899 THESIS CONTINUUM (1) Prerequisite: ISTC 898

ISTC 998 DISSERTATION IN ISTC (1-9) An original research investigation using research literature, methods, analysis and design. Prerequisite: Consent of adviser.

ISTC 999 DISSERTATION CONTINUUM (1) Continuing work on dissertation after completion of basic dissertation units. May be repeated as necessary. Prerequisite: ISTC 998

INTERDISCIPLINARY FINE ARTS (IDFA)

IDFA 601 ENHANCING READING THROUGH THE ARTS (3) Arts experience to facilitate skills, comprehension, analysis and synthesis of text-based learning materials. Includes pre-reading skills, readiness activities,

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vocabulary building, critical analysis and creative writing. Prerequisite: Graduate standing.

IDFA 602 ARTS ACROSS THE CURRICULUM (3) This course will explore the interdisciplinary planning and teaching strategies integrating the arts (dance, music, theatre and visual arts) with academic subjects in the K-12 curriculum. Prerequisite: Graduate standing.

IDFA 603 DRAMA IN THE CLASSROOM (3) A practical and philosophical framework for integrating drama across the curriculum. Through classroom activities and independent research, the participants will identify the significance and implications of drama, both as an art form (product) and as a cross-curricular tool (process). Aligning with the Maryland Voluntary State Curriculum for Fine Arts, the course includes planning, progression, continuity and assessment. The principles taught can be applied to the primary curriculum or to the secondary level as well. Prerequisite: Graduate standing.

IDFA 604 INTERDISCIPLINARY SEMINAR IN THE CONTEMPORARY ARTS (3) An interdisciplinary graduate seminar in the contemporary arts; topics vary by term. Prerequisites: Graduate-level standing or permission of the program director/instructor; upper-level writing necessary for undergraduates.

IDFA 606 ART FORMS (3) An interdisciplinary course focusing on the four art forms of dance, music, theatre and visual art through participation in the creative process. Prerequisites: Graduate standing, and certification in teaching or approval of program director/instructor.

IDFA 607 TEACHING THINKING THROUGH ART (3) An exploration of interdisciplinary planning, thinking, and teaching strategies, integrating art appreciation and cognition with core curriculum in the K-12 classroom. Prerequisites: Graduate standing, and certification in teaching or approval of program director/instructor.

IDFA 608 ARTS INTEGRATION CAPSTONE SEMINAR (3) An introduction to action research projects in arts integration. Includes the writing of a proposal, outline of project and research in selected area. Prerequisites: Graduate standing, and certification in teaching or approval of program director/instructor.

IDFA 609 ARTS INTEGRATION CAPSTONE PROJECT (3) Continuation of action research project. Includes implementation, analysis, reflection and evaluation of project. Prerequisites: Graduate standing; certification in teaching or approval of program director/instructor; IDFA 608.

INTERDISCIPLINARY HEALTH PROFESSIONS (IDHP)

IDHP 501 HIV/AIDS TESTING AND CONFIDENTIALITY IN THE 21ST CENTURY (3) Explores societal factors, resources, policies, health care delivery, legal/ethical issues and counseling. Students will be prepared for Maryland State Certification as HIV testing counselors. Prerequisites: HLTH 101 or NURS 406, PSYC 101, SOCI 101 and one of the following: BIOL 213, BIOL 215, HLTH 207 or NURS 204 or consent of instructor.

IDHP 513 CLINICAL PROGRAM PLANNING AND EVALUATION IN ALLIED HEALTH (3) Overview of the clinical program planning and evaluation process. Development of clinical health programs based on community/medical needs or needs of health care systems. Prerequisite: Special permit required.

IDHP 600 TRANSITIONS: HEALTH CARE PROFESSIONALS IN A CHANGING ENVIRONMENT (3) Introductory course in CAT program, focused primarily on context and stakeholders of health delivery system, along with leadership and teamwork. Prerequisite: Consent of instructor.

IDHP 602 CLINICAL PROGRAM PLANNING, IMPLEMENTATION AND EVALUATION (3) Planning clinical programs for health care environments and business planning. Course includes practical skill development in the design of a program proposal, including elements of reimbursement and regulatory requirements. Students will apply tracking systems to evaluate program effectiveness.

IDHP 605 MANAGING HEALTH CARE PROFESSIONALS (3) This course provides an overview of issues and skills involved in effectively managing the health professional. The course will focus on the application of the entire range of supervisory skills and personnel management practices to the tasks of administering a health care operation. Also listed as OOTH 605. Prerequisite: Consent of instructor.

IDHP 610 ADMINISTRATION OF HEALTH CARE ORGANIZATIONS (3) Capstone course in the interdisciplinary Clinician to Administrator Transition (CAT) certificate program. Integration and application of knowledge and skills related to program planning, financial management and management of human resources. Prerequisites: Completion of the first four courses in the CAT program and consent of instructor.

IDHP 621 CONTEMPORARY ISSUES FOR INFANTS AND CHILDREN ON THE AUTISM SPECTRUM (3) Theoretical and applied perspectives of current issues related to infants and children on the autism spectrum; family concerns; and considerations of educational, community and home contexts.

IDHP 623 CONTEMPORARY ISSUES FOR ADOLESCENTS AND ADULTS ON THE AUTISM SPECTRUM (3) Overview of theoretical and applied perspectives of current issues related to adolescents and adults on the autism spectrum with a primary focus on person-centered strategies and evidence-based practice.

IDHP 636 INTERMEDIATE STATISTICS FOR THE HEALTH SCIENCES (3) The focus of this course is on the statistical methodologies and research designs in public health. The course content ranges from single factor to multiple factor analyses. Advanced statistical analytical techniques will be addressed using hand held calculators (TI83 or equivalent), as well as, statistical software available in excel and SPSS. Topic, such as, effect size, confidence intervals, standard error of the mean, type I error, type II error, and power will be continuously emphasized throughout the course. May be repeated for a maximum of 3 units.

IDHP 647 HEALTH CARE FINANCIAL MANAGEMENT (3) Examination of financial aspects of health care, including accounting and budgeting. Aspects of production, distribution and organization and health services are reviewed from financial and economic perspectives. Also listed as HLTH 647.

IDHP 651 PLANNING AND MARKETING HEALTH IN BUSINESS AND INDUSTRY (3) Health promotion and delivery in the profit and not-for-profit sectors. Concepts and application of planning and marketing health in various settings. Also listed as HLTH 651.

IDHP 653 RESPONSIBLE CONDUCT OF RESEARCH (3) An interdisciplinary exploration of issues in the ethical conduct of research, and in the process of moving from graduate school into a career. Includes: societal, political, and institutional environment and values surrounding research and research misconduct; ways to encourage research integrity; and ways to evaluate it.

IDHP 681 SEMINAR IN AUTISM SPECTRUM ISSUES (1) Interdisciplinary analysis of issues and integration of services for people on the autism spectrum, their families and communities. Prerequisites: FMST 610 or SPED 605; Must be taken in final semester of program.

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IDHP 705 CULTURE AND HEALTH (3) Provides a theoretical framework for culture and health. Students will analyze cultural understandings on healthcare and synthesize this knowledge for application into their professional practice.

IDHP 712 ADULT LEARNER (3) Introduction to learning in adulthood, including context, development, process and practice. Prerequisite: Consent of instructor.

IDHP 741 ETHICAL AND LEGAL ISSUES IN CLINICAL PRACTICE (3) Provides an interdisciplinary exploration of legal and ethical issues in clinical practice, research, administration and teaching. It includes emphases on cultural diversity, truth-telling, informed consent, confidentiality, accountability, reimbursement pressures, new technologies and treatments, end-of-life care, licensure concerns, practice in varied settings and organizational ethics. Prerequisite: Admission to the Graduate School.

IDHP 770-775 SPECIAL TOPICS IN THE FIELD OF AUTISM (3) Study of selected topics in the field of autism. Student may repeat up to 6 units. Prerequisites: Vary with each topic; consent of program chair.

IDHP 791 DIRECTED READINGS IN THE FIELD OF AUTISM (3) This course focuses on in-depth explorations of topics related to the field of autism. Prerequisites: Consent of program chair.

IDHP 792 INDEPENDENT STUDY IN THE FIELD OF AUTISM (3) This course focuses on in-depth investigations specific to area of interest related to the field of autism. Prerequisites: Consent of program chair.

INTEGRATED HOMELAND SECURITY MANAGEMENT (IHSM)

IHSM 611 CRITICAL NATIONAL INFRASTRUCTURES (3) Examines America's critical infrastructures and their relationships to

one another, and issues pertaining to safeguarding and managing these infrastructures under serious threat. Analyzes key asset identification, threat and vulnerability, and studies technologies for their ability to support planning, mitigation, response, recover and prediction. Prerequisite: Open to IHSM-MS and SASM-PBC students only or department consent.

IHSM 612 PLANNING, PREVENTION AND RISK MANAGEMENT (3) Explores technology and management of holistic information security and risk with respect to U.S. homeland security and specific technologies and techniques used by terrorists, hackers, crackers, spies and thieves. Prerequisite: Open to IHSM-MS and SASM-PBC students only or department consent.

IHSM 613 EMERGENCY COMMUNICATION AND MANAGEMENT (3) Issues in communication in times of emergency, including communication within and between infrastructures, communication with the public, urgent message communication, and communication hierarchy and protocols in emergency situations. Prerequisites: Open to IHSM-MS and SASM-PBC students only or department consent.

IHSM 614 TEAM BUILDING AND LEADERSHIP SKILLS (3) Psychological and organizational aspects of group dynamics and work teams. Application of theory to actual teams in the workplace with respect to U.S. homeland security and specific case analysis/team solutions. Prerequisite: Open to IHSM-MS and SASM-PBC majors only or department consent.

IHSM 615 STRATEGIC AND TACTICAL PLANNING (3) This course deals with broad strategy and tactical planning at the national level and also at the level of each critical infrastructure. Strategies discussed include the Homeland Security Strategy, strategy for combating terrorism, strategy for aviation, strategy for pandemic/influenza, strategy for maritime defense and cyberspace strategy. Tactical

aspects include the national response plan and the national incident management system. Prerequisite: Open to IHSM-MS or SASM-PBC students only or department consent.

IHSM 620 INTRODUCTION TO INFORMATION ASSURANCE (3) This course introduces principles, mechanisms and implementation of information assurance. Emphasis is placed on human and technological aspects of information assurance and issues relevant to the risks in which information systems are exposed and methods of dealing with such risks. Not open to students who have taken COSC 644. Prerequisite: Open to IHSM-MS students only or department consent.

IHSM 621 INFORMATION SYSTEMS VULNERABILITY AND RISK ANALYSIS (3) The identification of vulnerabilities and risks inherent in the operation of information systems will be explored. Countermeasures will be discussed and documented in an effort to counter identify vulnerabilities.

IHSM 622 APPLICATION SOFTWARE SECURITY (3) Security concepts in developing software applications. This course discusses design principles for secure software development, and some of the security issues in current programming and scripting languages, database systems and Web servers. Prerequisites: COSC 578 and COSC 600. This course is not open to students who have taken COSC 647.

IHSM 623 NETWORK SECURITY (3) Network, security, hacker attacks, web security, e-mail security, e-commerce security, systems and operation environment security, database security, algorithms for making data communications secure, encryption and coding techniques and IP security.

IHSM 630 HEALTH SYSTEM PREPAREDNESS (3) Examines the health-related capacities and needs of homeland security infrastructures and systems, health response teams and communities at the local, regional and national levels. Prerequisite: Open to

IHSM-MS students only or department consent.

IHSM 631 MENTAL HEALTH PREPAREDNESS AND RESPONSE (3) Incorporating emergency mental health principles, strategies and concepts into overall emergency management planning; basic concepts of disaster and terrorism mental health response, at the individual, group, organizational and community levels. Case studies and course projects will be used to show practical applications. Prerequisites: Graduate standing and major standing.

IHSM 632 BIOTERROR PUBLIC HEALTH PREPAREDNESS (3) Covers core and specific discipline competencies for health, public health and other workers with emphasis on bioterrorism and public health emergency preparedness that is related to a potential biological, chemical, radiation, nuclear or other public health emergency. Prerequisites: Graduate standing and major standing.

IHSM 633 DISASTER RESPONSE AND COMMUNITY HEALTH (3) This course will address the need for professionals to incorporate an all hazards approach for disaster management and community health. Students will identify key international and national policies and their impact upon community health and national security. Students will be engaged in fieldwork with the community of their choice to plan, implement and evaluate a project designed to actively involve community members in some aspect of disaster preparedness. Prerequisites: Graduate standing and major standing.

IHSM 640 U.S. HOMELAND SECURITY POLICY (3) Examines the concept of U.S. homeland security in the context of recent history. Provides an overview of the nature of threats and major vulnerabilities that are the focus of homeland security efforts. The course surveys the principal actors engaged in the homeland security enterprise. It describes the evolution of institutions, network and organizational relationships that are emerging to accomplish the various homeland security mis-

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sions and functions. The course analyzes current homeland security policy issues and discusses the future of the homeland security enterprise. Prerequisite: Open to IHSM-MS students only or department consent.

IHSM 641 TERRORISM AND POLITICAL VIOLENCE (3) Analysis of the role of violence in the political process and of the threat posed to localities, states and nations from groups willing to employ political violence. Review of current political and terrorist groups and examination of effort to address threats of political violence. Prerequisite: Open to IHSM-MS students only or department consent.

ISHM 642 INTELLIGENCE AND HOMELAND SECURITY (3) Examination of the roles of intelligence in homeland security and national security policy, strategic and tactical warning, support for military operations, and covert action. Emphasis on problems in conduction intelligence in a democracy and on ethical considerations. Prerequisite: Completion of IHSM 615 or permission of the instructor.

IHSM 643 HOMELAND SECURITY AND CONSTITUTIONAL RIGHTS (3) A comprehensive investigation and analysis of the relationship between national security and civil liberties in the war on terrorism and other threats to American security. Prerequisite: Completion of IHSM core courses or permission of instructor.

IHSM 660 GIS APPLICATIONS: HOMELAND SECURITY AND EMERGENCY MANAGEMENT (3) Study and use of selected computer hardware and software for the storage, retrieval, manipulation, analysis, and display of geographic data. Emphasis is placed on the application of geographic information systems (GIS) for homeland security and emergency management. The course is not intended to provide students with extensive training in particular GIS software. However, laboratory projects involving student use of Windows-based GIS software on desktop computers, and internet-based GIS applications using Web browsers, are required and will reinforce

important concepts. Prerequisites: Graduate standing, major standing.

IHSM 670-679 SPECIAL TOPICS IN HOMELAND SECURITY (3) Selected topics in the Homeland Security area. Emphasis on new and emerging issues in Homeland Security. May be repeated for a maximum of 6 units. Prerequisites: Completion of all core courses in the IHSM program and consent of instructor.

IHSM 695 INDEPENDENT STUDY IN HOMELAND SECURITY (3) Selected topics in the homeland security area. Emphasis on new and emerging issues in homeland security. May be repeated for a maximum of 6 units. Prerequisites: Completion of all core courses in the IHSM Program and consent of instructor.

IHSM 881 GRADUATE PROJECT I (3) An original investigation of a problem to be pursued in cooperation with a federal, state, city or county agency on a homeland security-related topic under the direction of an agency supervisor and a member of the IHSM faculty. The faculty adviser, in conjunction with the agency supervisor, will guide the student throughout different phases of completing the project. Permit required, only for IHSM graduate students. Prerequisites: Completion of at least 12 units toward the M.S. in Integrated Homeland Security Management and consent of program director.

IHSM 882 GRADUATE PROJECT II (3) An original investigation of a problem to be pursued in cooperation with a federal, state, city or county agency on a homeland security-related topic under the direction of an agency supervisor and a member of the IHSM faculty. The faculty adviser, in conjunction with the agency supervisor, will guide the student throughout different phases of completing the project. Permit required, only for IHSM graduate students. Prerequisites: Completion of at least 12 units toward the M.S. in Integrated Homeland Security Management and consent of program director.

KINESIOLOGY (KNES)

KNES 505 BEHAVIOR MANAGEMENT TECHNIQUES IN THE CLASSROOM (3) Causes of misbehavior in pre-school, elementary and secondary schools. Crisis prevention; preventive, supportive and directive strategies and their practical application; class rules, reinforcers, assessment and legal issues. Prerequisites: Psyc 201 or equivalent.

KNES 509 STRESS MANAGEMENT, TENSION CONTROL AND HUMAN PERFORMANCE (3) Presents information about the manifestation of stress and systematic programs for tension control. The correlates surrounding progressive muscle relaxation and biofeedback are explored in detail as well as the neurological responses which produce tension responses. Lectures are combined with laboratory experiences in an effort to understand and practice relaxation techniques. Prerequisite: One psychology and/or biological sciences course.

KNES 523 ADAPTIVE PHYSICAL EDUCATION (3) Recognition of pupils with physical deviations and use of special or modified physical education activities. Prerequisites: PHEC 311 and BIOL 213/214.

KNES 526 MOTOR DEVELOPMENT: INFANTS TO ADULTS (3) Researching of literature in motor development and performance of the individual from infancy through adulthood. Impact of motor development on cognitive, affective and psychomotor development. Prerequisite: PSYC 201.

KNES 555 PHYSICAL ACTIVITY PROGRAMMING FOR THE OLDER ADULT (3) Application of physiological, psychological, sociological and motor learning principles to the development, professional and personal skills related to fitness assessment, exercise prescription, physical activity program planning and implementation. Prerequisite: PSYC 203 or consent of instructor.

KNES 570-579 SELECTED TOPICS IN PHYSICAL EDUCATION (1-3) Workshop designed for study of special topics of current interest in physical education and athletics. Content varies and will focus on substantive material or operational problems. May be repeated for a maximum of 6 units. Prerequisite: Consent of workshop director and/or graduate program director.

KNES 594 TRAVEL STUDY (3) Study of selected physical education programs, practices or facilities. Study group will be accompanied by a TU kinesiology department faculty member. Prerequisite: As specified in course outline and consent of instructor.

KNES 596 INDEPENDENT STUDY (1-3) Course is designed to permit students to take courses which they cannot arrange within the regular term schedule. All work will be under the direct supervision of an assigned faculty member. No more than 3 units may be earned in independent study unless permission of the department chair is obtained.

KNES 611 SPORT PSYCHOLOGY (3) A databased analysis of the behavioral consequences and antecedents of the sport experience. Investigation of current research in the field with attention to the research process. Experience with a research experiment in either a laboratory or field setting. Prerequisite: 6 units of upper-division PHEC courses or consent of instructor.

KNES 670-672 SELECTED TOPICS IN PHYSICAL EDUCATION (1-3) Course will focus on an in-depth study of selected topics in sport and physical education. Content will vary and will focus on current research and/or relevant sport and physical education concerns. The specific requirements will vary with each topic. Prerequisite: Approval of the graduate program director.

KNES 675 SOCIAL AND ETHICAL ISSUES IN SPORT (3) Exploration of the incontrovertible link among sport, commerce and culture. Understanding sport forms as cultural

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and intertwined with business will be accomplished through the sociological and philosophical analysis of several sport related topics. Specific topics covered will include, but not limited to, sport as a mediated spectacle, factors such as race, gender and class, the negotiation of sporting spaces, and human rights. Knowledge of these social and ethical issues will be discussed in term of its practical application to the sport industry setting. Prerequisites: None.

KNES 685 RESEARCH SEMINAR (3) Research on a problem through consultation with designated faculty members. Prerequisites: EDUC 691, undergraduate degree in physical education and consent of graduate program director.

KNES 687 INTERNSHIP IN PHYSICAL EDUCATION (3) Supervised field experience appropriate to student's interests and background in selected school, business, agency or professional settings. Prerequisites: Minimum of 9 units completed in graduate program, with a 3.00 GPA and/or consent of department chair.

KNES 696 INDEPENDENT STUDY IN PHYSICAL EDUCATION (3) Supervised study of research problems and special projects in specified areas of physical education. Prerequisites: KNES 639 or KNES 641 and consent of graduate program director.

KNES 697 DIRECTED READING IN PHYSICAL EDUCATION (3) Extensive reading in selected areas of physical education. Prerequisites: KNES 639 or KNES 641 and consent of graduate program director.

KNES 745 STRATEGIC SPORT MARKETING (3) Explores sport's unique commercial aspects and their effect on market analysis and segmentation, consumer behavior, branding and positioning, promotions and sponsorship, community impact, marketing assessment, and marketing ethics. Prerequisite: MKTG 640.

KNES 775 SPORT IN THE GLOBAL MARKETPLACE (3) Using theories from a number of disciplines, students in this course will consider issues related to sport commerce in global marketplace, including market saturation, just in time manufacturing of sporting goods, global sport branding, international sport regulation, post industrial sporting economics, sport in the global popular, sport in labor migration, sport and the culturalization of economics, global Fordism, and the challenge facing global the business of sport. Prerequisites: None.

LAW (LAW)

Courses offered at UB campus as part of the UB/Towson MBA program.

LAW 875 CYBERSPACE LAW SEMINAR (3) This seminar covers a wide range of legal issues as they pertain to the Internet and computer-assisted communications generally. These issues include protecting intellectual property rights, imposing tort liability on service providers, preserving freedom of speech in electronic media, establishing global jurisdiction and venue principles, protecting privacy and/or anonymity, and otherwise regulating the new media.

LESBIAN AND GAY STUDIES (LGST)

LGST 570-579 SPECIAL TOPICS IN LGBT STUDIES (3) Survey and critical evaluation of current research and literature in LGBT Studies. May be repeated for a maximum of 9 units provided a different topic is covered. Prerequisites: 6 units of course work in the lesbian and gay minor or consent of instructor.

LGST 581 READINGS IN LGBT STUDIES (1-3) A survey of relevant research literature under the guidance of a staff member who will direct the student's research. May be repeated for a maximum of 6 units. Prerequisites: 6 units of course work in the LGBT Studies minor or consent of the instructor.

LGST 591 INDEPENDENT INVESTIGATIONS IN LGBT STUDIES (3) An opportunity for especially qualified students to undertake research problems according to their interest and training under the direction of a staff member. May be repeated for a maximum of 6 units. Prerequisites: 6 units of course work in the lesbian and gay minor or consent of the instructor.

MANAGEMENT (MGMT)

MGMT 506 PRODUCTION AND SUPPLY CHAIN MANAGEMENT (3) Management of the processes involved in creating and distributing Products and services. Topics include strategic choice of technology, design of products/service and processes, location of facilities, project management, operations planning and control, material management, total quality management, benchmarking and performance measurement. Prerequisite: ACCT 504, OPRE 504

MGMT 600 LEADING AND MANAGING (3) Designed to be the first course taken in the integrated core of the MBA, the focus of this course is to explore the challenges and opportunities facing leaders and managers in a complex and diverse workplace. This course will help to develop key competencies in areas such as: managing human resources; working with individuals and groups inside or outside the organization; leading and managing change; and learning to lead. Prerequisite: Completion of at least four of the fundamental courses is recommended.

MNGT 609 BUSINESS AND SOCIETY (3) An integrated view of the interrelationships between managing responsibility in a complex environment and stakeholders (the firm's many publics); corporate social performance; values and ethics in management, including a process of moral reasoning for managers; business-government relations; crisis management and managing corporate social performance. Prerequisite: Graduate standing.

MNGT 612 MULTINATIONAL MANAGEMENT OF INFORMATION TECHNOLOGY (3) Information systems for multinational and international technologies. Strategic dimensions and international competition. Systems development strategies. Managing international information. Prerequisite: Admission to graduate program in Information Technology or Computer Science.

MNGT 614 SYSTEMS ENGINEERING MANAGEMENT (3) Systems engineering process and design requirements, methods, tools, planning, organization, review and evaluation. Contracting for systems engineering and supplier management. Prerequisite: Admission to graduate program in Information Technology or Computer Science.

MGMT 650 RESEARCH FOR STRATEGIC HUMAN RESOURCE MANAGEMENT DECISIONS (3) Methods and tools used in business research are explored through such topics as locating sources of strategic human resource management information, developing a research project, processing and analyzing data and organizing and presenting strategic human resource management reports. Prerequisite: OPRE 504 or equivalent.

MGMT 660 PROJECT MANAGEMENT (3) Traditional organizational structures are often no longer able to adequately handle rapid changes driven by technological advances and stiff global competition, and to more effectively respond to the fast changing economic environment and market conditions, managers are increasingly utilizing the project management approach. This course will introduce students to the behavioral and technical aspects of managing projects. Challenges of planning, monitoring and controlling complex projects to achieve the desired cost, quality and performance objectives will be discussed. Topics covered will also include cross-functional project teams, project integration, time management, time-cost trade-offs in project completion, procurement management and communications management. Prerequisite: MGMT 506 or area approval.

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MGMT 700 STRATEGIC MANAGEMENT IN A GLOBAL ENVIRONMENT (3) This course is the capstone course in the MBA program. In this course students assume the perspective of general managers facing decisions of strategic importance to their organizations. The critical functions of goal setting, strategy formulation, implementation and control processes are emphasized. The course encourages creative problem solving and analytical skills necessary to assess the global environment, industry-level factors, competitive behavior and the firms' internal resources. Students learn the importance of building and sustaining competitive advantage within an industry. Important dynamics of strategic innovation and renewal within an evolving organizations are stressed. Cases are drawn from a broad range of industries and industry research projects are emphasized. Prerequisite: prior or concurrent enrollment in the following courses: INSS 640, FIN 640, ACCT 640, ECON 640 and MKTG 640.

MGMT 710 HUMAN RESOURCE AND COMPENSATION MANAGEMENT (3) Covers human resource management issues including legal considerations, recruiting, selection, performance appraisal, development and health and safety. It will also cover strategic compensation issues including job evaluation, benefits administration and pay determination strategies. Additional emphasis will be placed on work-force diversity, international dimensions and ethical consideration. Prerequisites: Graduate standing.

MGMT 712 EMPLOYMENT LAW AND THE HUMAN RESOURCE MANAGER (3) Covers employment law as it applies to management decisions in recruitment and promotion as well as in terms of management's responsibility to comply with federal laws. Topics include legal issues in employment law and the legal consequences of non-compliance, the regulatory model of government control over the employment relationship, equal employment opportunity, safety and health regulations, Americans with Disabilities Act, pay and benefits law, Employee Retirement

Income Security Act, civil rights of employees (privacy and wrongful discharge), Family Leave Act, international comparisons and emerging regulatory issues. Prerequisite: MGMT 640.

MGMT 725 LABOR RELATIONS AND CONFLICT MANAGEMENT (3) Focuses on the legal foundations of labor management relations and the collective bargaining process. It will also cover the basic principles of contract negotiation, administration, impasse resolution and comparative labor relations in cross-cultural contexts. The course will cover conflict management strategies applied to workplace settings for groups and individuals. Prerequisite: MGMT 504.

MGMT 730 LEADERSHIP, LEARNING AND CHANGE (3) Based on the idea that the deeper we go into the exploration of organizational leadership, learning and change, the more we need to deal with the dimensions of sense-making, connection-building, choice-making, vision-inspiring, reality-creating roles of leaders. The course involves a series of workshops designed to help students learn something that cannot be taught: leading, learning and changing "from within." Readings, assignments and Web forum interactions are designed to inspire "practices of deep inflection": storytelling, historical inquiry, reflective reading and writing, dialogue and action research.

MGMT 731 LEADERSHIP SEMINAR (3) Focuses on the critical issues pertaining to success in operating at the executive level in business and other organizations. Topics include vision, values clarification, knowing the customer, communications for internal motivation and public awareness, ethical responsibilities, decision-making, resource decisions, performance maximization, human asset activities and individual leader behaviors for effectiveness.

MGMT 732 LEADERSHIP: SELF-ORGANIZATION IN THE FIRM (3) Covers self-organizing systems, complexity theory in

management, dialogue as a management tool, leadership in a complex system, pursuing a personal discovery process and growing new knowledge and innovation. A major objective of this course will be to discover the management principles and processes that promote and foster self-organization as an alternative to command and control hierarchies. This course will also draw on the profound implications of self-organization for growing new knowledge and innovation. A second major objective of this course has to do with the process of personal discovery. Parallel principles of spontaneous order operate at the level of the organization and at the level of the individual. As a result, a highly leveraged form of change in an organization is leadership through personal growth and discovery.

MGMT 745 MANAGING THE SUSTAINABLE ENTERPRISE (3) Sustainability is a modern business concept that offices on development of win-win business strategies that respect people, profit and planet (the “triple bottom line”). Course will incorporate the history of capita, business, and environmentalism and the triple-bottom-line concept. It will enable managers to incorporate sustainability into every phase of the business process and develop appreciation for the competitive implications of a sustainable business strategy. Prerequisites: Graduate standing.

MGMT 757 E-COMMERCE AND SUPPLY CHAIN MANAGEMENT (3) This course first provides an overview of e-commerce and supply chain management. It then covers in detail the role of e-commerce in design, integration and management of supply chains: logistics networks, business-to-business and business-to-consumer supply chains, decision support systems for supply chain management, strategic alliances, Internet strategy, e-business models, emarkets including auctions and exchanges, Internet retailing, dynamic pricing, distribution networks, Internet-based integration of value chains, the role of the Internet in infrastructure (banks, utilities and so forth), decision technologies, information goods, the status of brands in the

Internet economy, mass customization and various technologies related to e-business. Prerequisites: None

MGMT 760 ORGANIZATIONAL CREATIVITY, CHANGE AND ENTREPRENEURSHIP (3) Focuses on strategy and techniques for successfully introducing change to formal organizations. Covers the role of power, influence and communication in the change process, confrontation and effective intervention, concepts and techniques of organizational development, frameworks for creativity and acceptance of innovation. Included are individual and group research and experiential exercises. Prerequisite: MGMT 640.

MGMT 765 SOCIAL AND ETHICAL ISSUES IN SPORT (3) Exploration of the incontrovertible link among sport, commerce and culture. Understanding sport forms as cultural and intertwined with business will be accomplished through the sociological and philosophical analysis of several sport related topics. Specific topics covered will include, but not be limited to, sport as a mediated spectacle, factors such as race, gender, and class, the negotiation of sporting spaces, and human rights. Knowledge of these social and ethical issues will be discussed in terms of its practical application to the sport industry setting. Prerequisites: None

MGMT 770 PLANNING, PREVENTION AND MANAGEMENT OF RISK (3) Explores technology and management of holistic information security and risk with respect to U.S. Homeland Security and specific technologies and techniques used by terrorist, hackers, crackers, spies and thieves. Prerequisite: Graduate standing.

MGMT 775 SPORT IN THE GLOBAL MARKETPLACE (3) Using theories from a number of disciplines, students in this course will consider issues related to sport commerce in global marketplace, including; market saturation, just in time manufacturing of sporting goods, global sport branding, labor conditions in developing nations, sport in core periphery

economies, international sport regulation, post industrial sporting economies, sport in the global popular, sport labor migration, sport and the culturalization of economics, global Fordism, and the challenge facing global the business of sport. Prerequisites: None.

MGMT 780 INTERNATIONAL MANAGEMENT (3) Focuses on management challenges and dilemmas associated with business activity in multicultural environments within the United States and among other countries and provides the knowledge and sensitivities to more effectively identify, understand and manage the cultural components of organizational and business dynamics. Topics include cultural value awareness, cross-cultural communication skills, cross-cultural management skills (strategic planning, organizational design, leadership) and creating and managing a globally competent work force. Prerequisite: MGMT 640.

MGMT 781 INTERNATIONAL BUSINESS STRATEGY (3) Draws on the framework of global strategic management to help students integrate the concepts of economics, finance, marketing, technology and operations in a global context. IT focuses on market entry issues, transnational structures, operational issues and leadership in cross-cultural settings and provides the framework for a real-world international business project to be completed by student teams. Offers the option for a study/analysis trip to another country. Prerequisite: all MBA 500-level courses or equivalent.

MGMT 795 ENTREPRENEURSHIP PRACTICUM (3) Provides students an opportunity to work with a new company or product/service division on a real-life entrepreneurship project. They will work in consulting teams composed of teammates with varying specializations and interests. Projects may deal with market analyses, feasibility studies, distribution analyses or a variety of other specific company needs.

MGMT 796 GLOBAL BUSINESS PRACTICUM (3) The Global Business Practicum is designed to provide students with opportunities for real-world experience working with companies on international projects of real value and priority to the companies. Students choose an international study experience selected from among the participating School of Business specializations and companies. Student consulting teams will work together on a specific corporate project, focusing on a particular country or region of interest to the company. Projects may focus on market analyses, feasibility studies, distribution analyses or a variety of other specific company needs. Students register for this course as a 3-unit elective.

MGMT 797 SPECIAL TOPICS IN MANAGEMENT (3) An intensive exploration of topics in the area of management. Topics include e-commerce, e-commerce and supply chain management, e-venturing, leadership, organizational theory or best business practice. Refer to term class schedule for title of topic offered. May be repeated for credit when the topic varies. Prerequisite: to be determined by instructor.

MGMT 799 INDIVIDUAL RESEARCH (1-3) The purpose of individual research is to permit investigation into a particular subject in more depth than can be accommodated by an existing course. Students work closely with an individual faculty member. Prerequisite: approval of chair of marketing and management department.

MARKETING (MKTG)

MKTG 504 MARKETING MANAGEMENT (3) Covers concepts, processes and institutions necessary for the effective global marketing of goods and services, including an analysis of market opportunities, buyer behavior, product planning, pricing, promotion, distribution and the role of marketing within the organization and in society. Prerequisite: graduate standing.

MKTG 640 STRATEGIC MARKETING (3)

Explores marketing role in creating value for the firm and its stakeholders and examines market strategy in the context of intensifying global competition and a dynamic external environment. Using analytical tools for decisions making, students evaluate, formulate and implement marketing strategy across the product life cycle and in various levels of competitive intensity. Topics include the fundamentals of strategy; target marketing and brand management, value innovation and new product development; and market strategies in growth, mature and declining industries. Students will perform case analyses to apply marketing concepts to specific marketing situations. Prerequisite: MKTG 504 or area approval.

MKTG 742 SOCIAL, NONPROFIT AND PUBLIC SECTOR MARKETING (3)

Course will center on the application of social marketing principles, frameworks and tools within nonprofit and public sector organizations to improve performance and foster the successful dissemination of social initiatives to many differences in missions, structures and resources, this course emphasizes that effective social marketing requires a change from being organization-centered to become audience-centered. Prerequisites: MKTG 640 or equivalent.

MKTG 745 STRATEGIC SPORT MARKETING (3)

Explores sport's unique commercial aspects and their effect on market analysis and segmentation, consumer behavior, branding and positioning, promotions and sponsorship, community impact, marketing assessment, and marketing ethics. Prerequisite: MKTG 640. Course may be repeated for a maximum of 3 units.

MKTG 755 INTEGRATED MARKETING COMMUNICATIONS (3)

The course analyzes integrated marketing communications (IMC) management, and the role it plays in organizations' marketing plans. The focus is on strategic, synergistic planning to effectively use promotional tools to help the firm achieve

their promotion objectives. These tools include advertising, direct, online, sales promotion, personal selling, public relations, buzz marketing, trade shows, etc. Regulation, ethics, social responsibility, and economic factors that affect an IMC program will also be examined, as will consideration of the international environment, special decision areas, and how the IMC mix may change as a firm goes global. Prerequisite: MKTG 640.

MKTG 764 GLOBAL MARKETING MANAGEMENT (3)

The theory and application of marketing in a global context. Topics include international trade and financial markets, market structures of nations and consumption behavior related to culture, social values and economic conditions. Also considers the political and legal control over marketing activities (advertising, promotion and distribution), the growth of regional marketing arrangements relative to competitive strategies of multinational corporations, the dilemma of marketing ethics in a multicultural world and the cost-benefits of technology transfer. Prerequisites: MKTG 640.

MKTG 760 GLOBAL MARKETING MANAGEMENT (3)

The theory and application of marketing in a global context. Topics include international trade and financial markets, market structures of nations and consumption behavior related to culture, social values and economic conditions. Also considers the political and legal control over marketing activities (advertising, promotion and distribution), the growth of regional marketing arrangements relative to competitive strategies of multinational corporations, the dilemma of marketing ethics in a multicultural world and the cost-benefit of technology transfer. Prerequisite: MKTG 640.

MKTG 762 MARKET OPPORTUNITY ANALYSIS (3)

Introduces the subject of opportunity analysis in marketing, intrapreneurship and entrepreneurship and the practice of their requisite skills. It includes the analysis of markets, competition, preliminary cost feasibility and intellectual property and

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also involves the creation and development of strategic positioning appropriate to the marketing opportunity. Prerequisite: MKTG 504 or area approval

MKTG 764 GLOBAL MARKETING MANAGEMENT (3) The theory and application of marketing in a global context. Topics include international trade and financial markets, market structures of nations and consumption behavior related to culture, social values and economic conditions. Also considers the political and legal control over marketing activities (advertising, promotion and distribution), the growth of regional marketing arrangement relative to competitive strategies of multinational corporations, the dilemma of marketing ethics in a multicultural world and the cost-benefit of technology transfer. Prerequisites: MKTG 640.

MKTG 770 PRODUCT AND BRAND DEVELOPMENT MANAGEMENT (3) This course will focus on the firm's product and brand development and management strategies, with a special emphasis on innovative offerings. The influence of the social, legal and technological environment, as well as relationships with users and channel members, on the implementation of product and brand strategies are analyzed and discussed in depth. The course encourages applications of the learned concept to tangible and intangible products such as goods, services and ideas. Prerequisite: MKTG 640.

MKTG 775 CONSUMER ANALYSIS AND RELATIONSHIP MANAGEMENT (3) This course will focus on the identification, acquisition, growth, and retention of desired customers to maximize profit. Topics include segmentation, targeting and positioning, buyer behavior, customer relationship management and lifetime value in business-to-business and business-to-consumer markets. Prerequisite: MKTG 640.

MKTG 780 MARKET INFORMATION AND RESEARCH (3) Covers the acquisition, evaluation and use of competitor and con-

sumer information for goods and services. It explores a variety of methods, including the use of electronic data (such as the Internet, computer databases and scanner data) and behavioral research (including focus groups, observations, survey research and experiments). Emphasis is placed on the timeliness and validity of information in making effective marketplace decisions regarding competitor and consumer behavior. Prerequisite: MKTG 640.

MKTG 796 MARKETING PRACTICUM (3) Student teams apply concepts from other courses and their own experience to solve marketing problems. They are provided the opportunity to work on a real-life marketing project with an organization or one of its product/service divisions. Students work together in consulting teams composed of teammates with varying interests, backgrounds and academic specializations. Projects may deal with a variety of marketing strategies, including customer and competitive analysis, feasibility studies, product and service development, promotion, pricing and distribution, analyses and a variety of other specific organization or company needs. Prerequisites: Mktg 504 or area approval.

MKTG 797 SPECIAL TOPICS IN MARKETING MANAGEMENT (3) Specialized topics in marketing, allowing flexibility for both the changing developments in applied business practice and the educational needs of students. Exact topical coverage and prerequisites are listed in the schedule of classes. Prerequisite: MKTG 504 or area approval.

MKTG 799 INDEPENDENT STUDY (1-3) Prerequisites: MKTG 640 and approvals of marketing faculty member and chair of marketing and e-business department.

MASS COMMUNICATION (MCOM)

MCOM 502 LITERARY JOURNALISM (3) Literary techniques and dramatic structure for print and online journalistic media. Prerequisite: MCOM 356 or consent of the instructor.

MCOM 507 WRITING FOR NEW MEDIA (3) Research and create multimedia news and feature articles incorporating hypertext and graphics and photographic, audio and video elements. Prerequisites: MCOM 356, MCOM 357 or MCOM 381 and consent of instructor.

MCOM 533 MEDIA ETHICS (3) Ethical principles, issues, dilemmas in mass communication; professional codes; interpersonal, small group, organizational and societal factors affecting mediated communication. Prerequisite: Consent of the instructor.

MCOM 547 ADVERTISING CAMPAIGNS (3) Application of advertising principles and practices to the development of campaigns and the preparation of plan books. Prerequisite: MCOM 325 or consent of the instructor.

MCOM 550 PUBLIC OPINION AND THE PRESS (3) Journalistic aspects of public opinion and propaganda; the impact of mass communication media on the formation of public opinion. Techniques of polling and testing public opinion.

MCOM 551 PUBLIC RELATIONS FOR NONPROFIT ORGANIZATIONS (3) Fundraising and developing, implementing and evaluating public relations campaigns for nonprofit organizations. Practical experience in lab sessions. Prerequisite: MCOM 357 and consent of the instructor.

MCOM 553 STRATEGIC PUBLIC RELATIONS AND INTEGRATED COMMUNICATION CAMPAIGNS (3) Research, planning, implementing and evaluating programs and campaigns. Prerequisite: Consent of the instructor.

MCOM 559 PROFESSIONAL ISSUES IN STRATEGIC PUBLIC RELATIONS AND INTEGRATED COMMUNICATIONS (3) Technical, managerial, legal, ethical and accreditation issues and concerns. Prerequisite: Consent of the instructor.

MCOM 572 INTERNATIONAL ADVERTISING (3) Role of advertising and promotion programs in the world marketplace, consideration of global and local perspectives, key decisions in agency operations, creative aspects and media. Prerequisite: MCOM 360 or consent of the instructor.

MCOM 605 THEORIES OF PUBLIC RELATIONS AND ORGANIZATIONAL COMMUNICATION (3) First in a sequence of two courses that examine the body of knowledge in public relations, with an emphasis on the strategic management of communications, including analyzing theories, case studies and developing a literature review. Prerequisite: Consent of the instructor.

MCOM 606 PRACTICE OF PUBLIC RELATIONS AND ORGANIZATIONAL COMMUNICATION (3) Second in sequence of two courses that examine the body of knowledge in public relations, with a focus on the strategic management of communication, including marketing, case studies and field investigations. Web supported (50 percent or more online). Prerequisites: MCOM 605 and MCOM 631.

MCOM 630 PROFESSIONAL COMMUNICATION COMPETENCIES IN A CHANGING ENVIRONMENT (3) Course is designed to enhance and expand oral and written communication skills in traditional and new technology venues with emphasis on segmented audiences and expanding markets. Topics will include computer-mediated communication, legal complexities of publicly held companies and electronic-assisted meeting and conferences. Prerequisites: MCOM 605 and 631.

MCOM 631 RESEARCH METHODS IN MASS COMMUNICATION (3) Development of quantitative and qualitative communication research designs. Prerequisite: A statistics course and consent of the instructor.

MCOM 638 MANAGING COMMUNICATION IN A CULTURALLY DIVERSE SOCIETY (3) Study of the complexities of managing

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integrated communication in a society composed of diverse audiences including cultural, ethnic, physical, life style, religious and racial diversity. Prerequisite: Consent of the instructor.

MCOM 660 CRISIS COMMUNICATION (3) Explores communication theories and techniques used in crisis communication and apologia. Topics include inoculation practices, crisis avoidance, bolstering, models of leadership and crisis management plans. Prerequisite: Consent of the instructor.

MCOM 670-673 SPECIAL TOPICS IN PUBLIC RELATIONS AND INTEGRATED COMMUNICATION (3) Course topics vary depending on the focus of the specific course. Prerequisite: Consent of the instructor.

MCOM 683 COMMUNICATING IN SOCIETY: PERCEPTION AND REALITY (3) Examines historic and contemporary impact that communication has played in creating world cultures and societies. Areas of investigation will include public relations, advertising, electronic media, propaganda, the Internet and movies. Prerequisites: MCOM 605, 606, 630 and 631

MCOM 795 INDEPENDENT STUDY IN MASS COMMUNICATION (3) Directed study in production or research in selected areas through readings, projects, papers and/or seminars. May be repeated for a maximum of 6 units. Prerequisites: 15 units of graduate-level mass communication and/or communication studies courses, and consent of instructor.

MCOM 897 THESIS (6) A carefully executed and accurate recording of a specific topic in mass communication. An acceptable research methodology must be used. Includes an outline of the proposed thesis submitted for approval to graduate adviser. Prerequisites: The student must be advanced to degree candidacy and have completed all of the required core courses.

MCOM 898 THESIS (3) The previous course, MCOM 897, taken over two consecutive terms. Prerequisite: Department consent.

MCOM 899 THESIS CONTINUUM (1)

MATHEMATICS (MATH)

MATH 501 HISTORY OF MATHEMATICS (3) Development of mathematics emphasizing mathematical concepts and contributions of individuals and societies. Prerequisites: MATH 263 and MATH 274.

MATH 521 APPLICATIONS OF MATHEMATICS FOR SECONDARY SCHOOL TEACHERS (3) The course examines a series of applications of mathematics that may be used to enrich the secondary mathematics curriculum. Prerequisite: Teaching experience in mathematics or science, or consent of instructor.

MATH 525 METHODS AND MATERIALS FOR MATH LAB INSTRUCTION (1-3) Examination of, and experiences with, commercial and teacher-made materials designed for a laboratory (activity-centered) approach to learning mathematics. Prerequisite: A ?_ methods course in teaching mathematics (MATH 321, 323, 423) or previous teaching experience.

MATH 527 READINGS IN MATHEMATICS EDUCATION FOR THE ELEMENTARY SCHOOL TEACHER (1-3) Directed study for the teacher of elementary school mathematics. Prerequisites: MATH 321 or MATH 323 and approval of instructor.

MATH 529 READINGS IN MATHEMATICS EDUCATION FOR THE SECONDARY SCHOOL TEACHER (1-3) Directed study for the teacher of secondary school mathematics. Prerequisite: Consent of instructor.

MATH 531 PROBABILITY (4) Probability in sample spaces, discrete and continuous random variables, distribution theory. Tchebyshev's theorem, central limit theorem, expected

values and moments. Prerequisite: MATH 274.

MATH 532 MATHEMATICAL STATISTICS (3) Sample theory and distributions, point estimation, confidence intervals, tests of hypotheses and theory of statistical inference. Prerequisite: MATH 531.

MATH 533 APPLIED REGRESSION AND TIME SERIES ANALYSIS (4) Simple and multiple regression models, least squares estimates, hypothesis testing, confidence intervals and prediction intervals, model building methods and diagnostic checking. Non-seasonal time series models: autoregressive, moving-average, autoregressive moving-average, and autoregressive integrated moving-average models, parameter estimation and forecasting. Minitab or similar software is used for real data analysis. Prerequisites: MATH 231 or equivalent and MATH 265 or equivalent.

MATH 534 NONPARAMETRIC STATISTICAL METHODS (3) Applied study of popular nonparametric tests, procedures utilizing data from a single sample and two or more independent and related samples; Chi-square tests of independence, homogeneity and goodness-of-fit; rank correlation and other measures of association. Prerequisite: One course in elementary statistics.

MATH 535 NUMERICAL ANALYSIS I (3) Error analysis, interpolation, numerical differentiation and integration, numerical solution of algebraic equations and of systems of algebraic equations. Prerequisites: MATH 265, MATH 274 and COSC 236.

MATH 536 NUMERICAL ANALYSIS II (3) Numerical solution of differential equations. Least square and its applications, linear programming and extension of the concepts of MATH 435. Prerequisite: MATH 435 (offered only in the spring term of the academic year).

MATH 537 OPERATIONS RESEARCH (3) Introduction to linear and integer programming; the simplex method and duality theory;

dynamical formulation of deterministic decision-process problems, applications to problems of equipment replacement, resource allocation and scheduling; Poisson and birth and death processes. Markovian queues. Prerequisites: MATH 265 and MATH 331.

MATH 538 ACTUARIAL MODELS (3) Theory and applications of contingency mathematics in the areas of life and health insurance, annuities and pensions from both the probabilistic and deterministic approaches. Prerequisite: MATH 331.

MATH 539 BIOSTATISTICS II (3) Probability and random variables, estimation and hypothesis testing, nonparametric methods, categorical data analysis, multiple regression, analysis of variance and design techniques for epidemiological study. Minitab or similar software will be used for data analysis.

MATH 543 APPLIED ANALYSIS OF VARIANCE (3) Single and multifactor models, inference for factor level means, multiple comparison methods for factor level means, test of additivity, test of homogeneity, regression approach to analysis of variance. Prerequisite: MATH 333.

MATH 545 SAMPLING TECHNIQUES (3) Simple random, stratified, systematic, cluster and double sampling. Sampling for proportions, averages and totals and sample size determination. Prerequisite: One course in elementary statistics.

MATH 546 STATISTICAL METHODS IN QUALITY CONTROL (3) Statistical process control including principles of control charts, control charts for attributes and variables and special control charts; methods for quality improvement. Acceptance sampling including single, double, multiple and sequential attribute sampling and acceptance sampling by variable. Prerequisite: One course in elementary statistics.

MATH 551 GRAPH THEORY (3) Hamiltonian and Eulerian graphs, coloring graphs, planar and non-planar graphs, connectivity

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problems and isomorphic graphs and advanced topics. Prerequisite: MATH 265 or MATH 267.

MATH 557 DIFFERENTIAL GEOMETRY

(3) Curvatures of curves and surfaces in E^3 , geodesics, invariants, mappings and special surfaces. Prerequisites: MATH 275 Calculus III and MATH 265 Elem. Linear Algebra.

MATH 563 LINEAR ALGEBRA

(3) Vector spaces over arbitrary fields, linear transformations, eigenvalues, eigenvectors, inner products, bilinear forms, direct sum decompositions and the Jordan form. Prerequisites: MATH 265 and MATH 267.

MATH 565 THEORY OF NUMBERS

(3) Topics include congruences, polynomial congruences, primitive roots, residues, multiplicative functions. Prerequisites: MATH 369.

MATH 568 ALGEBRAIC STRUCTURES

(3) Topics include groups, solvability and unsolvability of polynomials, principal ideal and Euclidean, and unique factorization domains. Prerequisite: MATH 369.

MATH 574 DIFFERENTIAL EQUATIONS

(3) Theory and application of linear ordinary differential equations. Solutions of nonlinear ordinary differential equations of the first order. Prerequisite: MATH 274.

MATH 575 MATHEMATICAL MODELS

(3) Consideration of some mathematical problems in sociology, psychology, economics, management science and ecology, and developing appropriate mathematical models and techniques to solve them.

MATH 576 INTRODUCTORY REAL ANALYSIS

(4) Introduction to mathematical analysis. Sequence series, continuity, differentiation, integration and uniform convergence. Prerequisites: MATH 267 and MATH 275.

MATH 577 COMPLEX ANALYSIS

(3) Complex number system, analytic functions, Cauchy's integral theorem and integral for-

mula, Taylor and Laurent series, isolated singularities, Cauchy's residue theorem and conformal mappings. Prerequisite: MATH 275.

MATH 578 TOPOLOGY

(3) Basic concepts of pointset topology, separation axioms, compact and connected spaces, product and quotient spaces, convergence, continuity and homeomorphisms. Prerequisites: MATH 267 and MATH 275.

MATH 579 ADVANCED CALCULUS

(3) Vector, integral and differential calculus including the divergence and Stoke's theorems. Fourier series, orthogonal functions and applications. Prerequisite: MATH 275.

MATH 580-589 SELECTED TOPICS IN MATHEMATICS AND STATISTICS

(1-4) Topics will be chosen from different areas in mathematics through MATH 483 (may not be counted toward a Mathematics major). Students may not accumulate more than 9 units in Selected Topics. Prerequisite will vary from topic to topic.

MATH 585 MATHEMATICAL FINANCE

(3) Mathematical theory, computation and practical application of derivatives in managing financial risk. Fundamental derivative calculations for single period models; such as forwards, futures and options. Binomial trees will be explored along with an introduction to Black-Scholes continuous time mode. Computer laboratory activities throughout. Prerequisite: MATH 331.

MATH 586 RISK MANAGEMENT AND FINANCIAL ENGINEERING

(3) Overview of risk management process and use of Greek functions. Mathematical theory and applications of value at risk, estimating volatilities and correlations, volatility risk and engineering of new risk management products. Computer laboratory activities throughout. Prerequisite: MATH 485.

MATH 591 READINGS IN MATHEMATICS

(1-3) Independent readings in selected

areas of mathematics. Prerequisite: Consent of instructor. May be repeated for a maximum of 6 units.

MATH 602 CULTURAL AND PHILOSOPHICAL BACKGROUND OF MATHEMATICS (3) Meanings and origins of mathematical concepts, schools of philosophical thought, cultural and ethnomathematical context of mathematics, philosophy and purpose of mathematics education, current issues in mathematics and mathematics education, role of the mathematics teacher in current debates. Prerequisite: Admission to master's in Mathematics Education program.

MATH 621 SEMINAR IN TEACHING ELEMENTARY/MIDDLE SCHOOL MATHEMATICS (3) Analysis of techniques and materials in elementary and middle school mathematics instruction and assessment. Student may not receive credit for both MATH 621 and MATH 422 except by special permission from the graduate program director and the chair of the mathematics department. Prerequisites: A grade of C or better in each of MATH 204 (or MATH 206); MATH 205 (or MATH 207); and MATH 251.

MATH 622 SEMINAR IN TEACHING ADVANCED PLACEMENT CALCULUS (3) Discussion and analysis of materials, pedagogy, and technology for the teaching of Advanced Placement calculus in high schools. Prerequisite: Admission to the M.S. program in Mathematics Education or consent of the instructor.

MATH 625 SEMINAR IN MATHEMATICS EDUCATION FOR SECONDARY SCHOOL TEACHERS (3) Investigations of recent curricula and research, pedagogy, materials, technology and assessment techniques for middle and high school teachers of mathematics. Prerequisite: MATH 423 or equivalent.

MATH 626 TECHNOLOGY IN SCHOOL MATHEMATICS TEACHING AND LEARNING (3) History and use of technology in teaching mathematics in grades 6

through 12. Students will use scientific and graphing calculators, computers and other devices such as the Calculator-Based Laboratory (CBL) to solve problems found in secondary mathematics curriculum and apply this knowledge in the teaching of mathematical concepts. Software such as Mathematica, MathCad and Geometer's Sketchpad will be studied and students will write lessons using one of these software packages. The use of the Internet and other technological resources to teach mathematics will also be studied. Prerequisite: Admission to the graduate program.

MATH 627 CURRICULUM ISSUES IN SECONDARY SCHOOL MATHEMATICS (3) Analyze secondary school mathematics curriculum development from a historical perspective and discuss past influences on current methodology. Distinguish current curriculum trends and design alternatives. Evaluate contemporary curriculum by assessing an existing text or program. Create a selected mathematics unit. Prerequisite: MATH 625.

MATH 628 REAL ANALYSIS FOR TEACHERS (3) Principles underlying calculus, including topics in real analysis such as completeness for the reals, limits, continuity, differentiation/integration, sequences and series. Emphasis on mathematical theory and the pedagogy of teaching functions. precalculus and calculus in the secondary school. Prerequisites: Admission to the master's program in Mathematics Education (or approval of department), MATH 273-274 or equivalent.

MATH 630 STATISTICS—AN INTEGRATED APPROACH (4) Theory and practices of basic statistical analysis and inference with emphasis on analyzing and solving real problems using statistics. Descriptive statistics, introduction to probability, sampling distributions, estimation, hypotheses testing, regression, correlation, nonparametric techniques and analysis of variance, and computer programming incorporated throughout. Prior knowledge of programming is not necessary. Prerequisite: MATH 274 (not open to students who have completed MATH 332).

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MATH 631 TOPICS IN PROBABILITY (3)

Review of basic probability theory, types of convergence and limit theorems, elementary stochastic processes. Markov chains, birth and death processes. Gaussian processes. Examples from engineering, physical and social sciences, management and statistics. Prerequisite: MATH 331.

MATH 632 COMPUTATIONAL STOCHASTIC MODELING (3)

Computing expectations and probabilities by conditioning. Markov chains: classification of states, limiting probabilities, gambler's ruin problems, algorithmic efficiency, branching process, time-variable Markov chains, continuous-time Markov chains, birth and death processes, Kolmogorov differential equations, uninformatization. Renewal theory and its applications. Prerequisite: MATH 331, MATH 531 or consent of chair.

MATH 633 QUEUING SYSTEMS (3)

Characterization and analysis of basic queuing systems, both single-server and multiple-server. The M/G/1 and G/M/m queuing systems. Multiserver with queuing, multiserver queuing rules, priority queues. Networks of queues: response time, routing, flow and congestion control. Manufacturing systems: capacity/inventory investment and scheduling. Prerequisite: MATH 331, MATH 531 or consent of chair.

MATH 634 COMPUTATIONAL SPECTRAL ANALYSIS AND TIME SERIES (3)

Random processes, single and double exponential smoothing forecast methods, autoregressive moving average models, maximum likelihood estimation, minimum variance spectral estimation, maximum entropy, periodogram analysis. Computation of spectral estimates; the fast Fourier transform, Yule-Walker equations, Prony's method. Kalman and adaptive filtering. Minitab or a similar software package will be used. Prerequisites: MATH 265 and MATH 332, or MATH 532, or consent of chair.

MATH 635 APPLIED NUMERICAL ANALYSIS (3)

Approximating functions, numerical solution of ordinary differential equations, numerical solution of partial differential equations, selected topics in numerical linear algebra such as orthogonal factorizations and least-square problems, singular value decomposition and pseudo-inverse, the Q-R algorithm of Francis for the eigenvalue problem. Mathematica or a similar software package will be used. Prerequisites: MATH 374 or MATH 574, and MATH 435 or MATH 535, or consent of chair.

MATH 636 LINEAR AND NONLINEAR PROGRAMMING (3)

Formulations and model building in linear programming. The simplex method and its variants. Duality theory. Sensitivity analysis, polynomial time algorithms. Multiobjective optimization models and algorithms. Prerequisite: MATH 265, MATH 275 and graduate standing or consent of chair.

MATH 637 ADVANCED TOPICS IN APPLIED OPERATIONS RESEARCH (3)

Dynamic programming, formulation of deterministic decision-process problems, analytic and computational methods of solution, application to problems of equipment replacement, resource allocation, scheduling, search and routing. Brief introduction to decision making under risk and uncertainty. Prerequisites: MATH 275 and MATH 331, or MATH 531 or consent of chair.

MATH 638 APPLIED MULTIVARIATE STATISTICAL ANALYSIS (3)

A brief review of vector and matrix algebra and an introduction to applications of multivariate statistical methods. Multivariate normal distribution and its properties, inference for mean vector of a multivariate normal distribution, and simultaneous inference for components of the mean vector. Principle components, factor analysis, and discrimination and classifications. The course introduces many applications of the topics related to real-world problems in the fields of engineering, sciences and business. Minitab or similar software is used for real

data analysis. Prerequisites: MATH 531 or equivalent, MATH 533 or equivalent, MATH 265 or equivalent.

MATH 639 LOSS MODELS (4) Severity models, frequency models, aggregate models, survival models, construction of parametric models, and credibility models. Prerequisite: MATH 532 or equivalent.

MATH 643 COMPUTATIONAL METHODS OF MATHEMATICAL FINANCE (3) Computation techniques involving tree method, finite difference scheme, Monte Carlo simulation, term structure fitting and modeling, financial derivative pricing, the Greeks of options, Capital Asset Pricing Model, Value-at Risk calculation. Software package such as Mathematica or Excel will be used. Prerequisite: MATH 585 or equivalent.

MATH 644 MATHEMATICS OF FINANCIAL DERIVATIVES (3) Modern pricing theory for financial derivatives, stochastic differential equations, Ito formula, martingales, Girsanov Theorem, Feynman-Kac PDE, term structure, Interest-Rate models and derivatives, optimal stopping and American options. Prerequisite: MATH 585 or equivalent.

MATH 650 PATTERNS IN MATHEMATICAL DESIGNS (3) The course is a geometrical bridge between science and art, and covers topics such as the systems of proportion in mathematics, art, architecture and in nature; the golden mean, Fibonacci series, Archimedes and logarithmic spirals, growth and similarity in nature; graphs and maps on the Euclidean plane and on a sphere, on a torus, and map coloring; periodic and non-periodic tilings, duality and the modules of semi regular tilings; polyhedra and platonic solids and their duality and combinatorial and space-filling properties. Prerequisite: Admission to the master's in Mathematics Education or approval of the department.

MATH 651 MATHEMATICS OF FUZZY LOGIC (3) Basic concepts of fuzzy logic, fuzzy sets, fuzzy uncertainty, fuzzy relations, compar-

ing fuzzy logic with first-order predicate logic, algebra of fuzzy logic, approximate reasoning, rule-based systems. Description of linguistic data using fuzzy sets. Applications: rule-based expert systems, decision making, pattern recognition, control theory, optimization. Prerequisite: Graduate standing or consent of chair.

MATH 653 TOPICS IN GEOMETRY (3) Axiomatic development of Euclidean, elliptic and hyperbolic geometries; the study of the analytic plane, the sphere and the Poincare model as models for these axiomatic systems. Not open to students who have had MATH 353. Prerequisites: MATH 274 and MATH 467 (or MATH 568).

MATH 667 ALGEBRA OF SYMMETRIES (3) Complex integers, permutation groups, properties of abstract groups of plane transformations and matrix representations of transformations. Culminates in developing the 17 groups of symmetries of the Euclidean plane. No credit toward the master's in Applied and Industrial Mathematics. Prerequisite: Admission to the Master of Science in Mathematics Education Program or approval of the department chair.

MATH 671 CHAOTIC DYNAMICS AND FRACTAL GEOMETRY (3) Introduction to the classical theory of linear systems and the modern theory of nonlinear and chaotic systems. Modeling of discrete and continuous time systems. Bifurcation theory, symbolic dynamics, fractals and complex dynamics, Julia sets and the Mandelbrot set. Mathematica or an equivalent software package will be used. Prerequisites: MATH 265 and MATH 275, and graduate standing or consent of chair.

MATH 673 INTEGRAL TRANSFORMS AND APPLICATION (3) Integral transforms and their applications: Fourier, Laplace, Hankel, Mellin and z-transforms and their applications for solving ordinary differential equations, partial differential equations, integral equations and difference equations arisen from physics, engineering and sciences. Prerequisites: MATH 374 (or MATH 574); MATH

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379 (or MATH 579); MATH 475 (or MATH 577); or consent of chair.

MATH 674 APPLIED PARTIAL DIFFERENTIAL EQUATIONS (3) Discussions of the typical partial differential equations of applied mathematical physics: Heat equations, Wave equations, Beam equations, Laplace equations. Separation of variables, variation of parameters and Fourier transform for initial and boundary value problems, calculus of variation and Ritz-Galerkin's numerical method. Prerequisite: MATH 374 (or MATH 574); MATH 379 (or MATH 579); or consent of chair.

MATH 675 ASYMPTOTIC AND PERTURBATION ANALYSIS (3) Asymptotic series and asymptotic methods for approximating solutions to linear and nonlinear ordinary differential equations. Asymptotic expansion of integrals, Watson's Lemma. Perturbation series, regular and singular perturbation theory. Boundary layer theory for ordinary differential equations. Prerequisite: MATH 374/574 or equivalent and MATH 475/577 or equivalent.

MATH 677 ADVANCED MATHEMATICAL MODELING (3) Development of appropriate stochastic as well as deterministic models to solve applied mathematical problems in the fields of physics, engineering, and the social sciences. Topics include optimization models, dynamic models, probability models and Monte Carlo simulation. Mathematica or a similar software package will be used. Prerequisites: MATH 331 or MATH 531, and MATH 379 or MATH 579, or consent of chair.

MATH 684-689 SELECTED TOPICS IN MATHEMATICS AND STATISTICS (1-4) Topics will be chosen in mathematics or statistics. Course content will be determined so as to complement course offerings in mathematics and statistics. Course may be repeated for a maximum of 8 units. Prerequisite: Will vary depending on topic.

MATH 695 INDEPENDENT STUDY IN MATHEMATICS (1-3) Directed independent study in selected areas of graduate level mathematics. Prerequisite: Permission of instructor and graduate adviser.

MATH 791-792 MASTER'S INTERNSHIP (3) An original investigation of a problem to be pursued in cooperation with a local industry or business under the direction of an industry supervisor and a member of the mathematics faculty. Prerequisites: Completion of at least 15 units toward the M.S. degree in Applied and Industrial Mathematics and consent of chair.

MATH 880 APPLIED MATHEMATICS GRADUATE PROJECT I (3) An internal applied mathematics graduate project based on mutual research interest of a graduate student in the APIM program and a faculty adviser will be investigated. The adviser will guide the student throughout different phases of solving the applied mathematics problem. Prerequisite: Consent of the instructor.

MATH 882 APPLIED MATHEMATICS GRADUATE PROJECT II (3) An internal applied mathematics graduate project based on mutual research interest of a graduate student in the APIM program and a faculty adviser will be investigated. The adviser will guide the student throughout different phases of solving the applied mathematics problem. Prerequisite: Consent of the instructor.

MATH 885 APPLIED MATHEMATICS GRADUATE PROJECT CONTINUUM (1) Students who cannot complete MATH 881-882 in two terms will register for MATH 885, 1 unit, in the next term. Except in very special circumstances, MATH 885 should not be repeated. Prerequisite: Consent of the instructor.

MATH 897 MASTER'S THESIS IN MATHEMATICS EDUCATION (6) An original investigation using an acceptable research method and design conducted under the direc-

tion of one or more faculty members. Prerequisite: Department consent.

MATH 898 THESIS (3) The previous course, MATH 897, taken over two consecutive terms.

MATH 899 THESIS CONTINUUM (1)

MATH EDUCATION (MTED)

MTED 605 MIDDLE SCHOOL MATHEMATICAL METHODS AND PROBLEM SOLVING (3) Best practices for delivery and assessment of mathematical concepts and skills relevant to the middle school level of instruction. Topics include problem solving, geometry and measurement, number sense, data analysis and probability, and algebra. Cannot be used for any other graduate program in the mathematics department. Prerequisite: Admission to the master's in Mathematics Education or approval of the department.

MTED 611 ALGEBRA FOR MIDDLE SCHOOL TEACHERS (3) An intensive understanding of the middle and high school algebra and the best practices for delivery and assessment of algebra for middle school instruction. Topics include divisibility and factorization, factorization, functions, equations and inequalities. Cannot be used for any other program in the mathematics department. Prerequisite: Admission to the master's in Mathematics Education or approval of the department.

MTED 612 DATA ANALYSIS FOR MIDDLE SCHOOL TEACHERS (3) Topics from statistics and probability, and recent methodologies and standards for data analysis in middle school level. The course also offers activities using Fathom-a computer learning environment for data analysis and statistics. Cannot be used for any other graduate program in the mathematics department. Prerequisite: Admission to the master's in Mathematics Education or approval of the department.

MTED 613 MATHEMATICAL MODELING FOR MIDDLE SCHOOL TEACHERS (3) The prerequisite topics needed in order to learn Calculus. Topics include the behavior functions, fitting functions to data, sequences, and modeling. The appropriate use of handheld technologies is stressed throughout the course. Internet resources for students to access outside of class have been included. Prerequisite: Admission to the master's in Mathematics Education or approval of the department.

MTED 614 CALCULUS THROUGH TECHNOLOGY FOR MIDDLE SCHOOL TEACHERS (3) Intuitive calculus of one variable, modeling best practices. Topics include limits, differentiation, integration and application of calculus. Graphing calculators and other computer learning environments such as Mathematica are included. Cannot be used for any other graduate program in the mathematics department. Prerequisite: MTED 613, Mathematical Modeling for Middle School Teachers, or approval of the department.

MTED 615 GEOMETRY FOR MIDDLE SCHOOL TEACHERS (3) Geometric vocabulary, relationships, concepts and skills in two and three dimensions; topics include a review of Euclidean Geometry, coordinate and transformations geometries, tessellation, polyhedra, measurement, and the use of appropriate technology in the classroom. Cannot be used for any other graduate program in mathematics department. Prerequisite: Admission to the master's in Mathematics Education or approval of the department.

MOLECULAR BIOLOGY, BIOCHEMISTRY, BIOINFORMATICS (MBBB)

MBBB 501 ADVANCED BIOINFORMATICS (4) Advanced topics in bioinformatics including the use of computational tools in simulation, animation, modeling and visualization of biological data. Techniques such as statistical analysis, data mining, databases,

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and data warehousing are covered. Prerequisites: COSC 237 and MBBB 302 Introduction to Bioinformatics.

MUSIC (MUSC) HISTORY/ LITERATURE, THEORY, COMPOSITION, SPECIAL TOPICS

MUSC 502 MUSIC OF THE BAROQUE PERIOD (3) Study of the development of music style, forms and compositional techniques during the period from 1600 to about 1750. Prerequisite: MUSC 232 or consent of instructor.

MUSC 503 MUSIC OF THE CLASSICAL PERIOD (3) Styles, forms and techniques of the period from 1750-1820. Particular emphasis is placed on such instrumental categories as the string quartet, sonata, symphony and concerto as illustrated in the works of Haydn, Mozart and Beethoven. Attention is given to operatic and sacred compositions of the same masters. Prerequisite: MUSC 232 or consent of instructor.

MUSC 504 MUSIC OF THE ROMANTIC PERIOD (3) Musical styles, forms and techniques in the 19th century with special attention to the intellectual foundations of the Romantic movement. Prerequisite: MUSC 232 or consent of instructor.

MUSC 505 CONTEMPORARY MUSIC (3) Styles, forms and musical techniques since 1900. Prerequisite: MUSC 302 or consent of instructor.

MUSC 506 SURVEY OF SOLO VOICE LITERATURE (3) A musical survey of the art song from circa 1750 to the present. Prerequisite: MUSC 232 or consent of instructor.

MUSC 509 HISTORY AND LITERATURE OF GUITAR, LUTE AND VIHUELA (3) A survey of the history and literature written for or readily adaptable to the guitar. Includes study of tablatures and transcriptions to modern notation. Prerequisite: MUSC 232 or consent of instructor.

MUSC 511 SURVEY OF OPERA (3) Study of opera literature of various periods and styles. Prerequisite: Junior or senior standing or consent of instructor.

MUSC 513 SYMPHONIC LITERATURE (3) Survey of orchestral music from the Classical Era to the present. Includes symphony, overture and symphonic poem. Prerequisite: MUSC 232 or consent of instructor.

MUSC 514 COUNTERPOINT (3) Principles of species counterpoint, using examples from all style periods and writing of counterpoint in all five species. Prerequisite: Completion of music theory sequence or graduate standing.

MUSC 519 KEYBOARD LITERATURE (3) The study of literature for keyboard instruments from 1450 to the present. Prerequisite: Upper-division or graduate standing as a Music major, or consent of instructor.

MUSC 521 AMERICAN MUSIC (3) American music from the Colonial Period to the present. Prerequisite: Junior/senior standing or consent of instructor.

MUSC 525 JAZZ REPERTOIRE (3) Study and performance of standard jazz literature for small, varied instrumental groups or vocalists. Prerequisite: MUSC 232 or consent of instructor.

MUSC 526 JAZZ HISTORY (3) Survey of jazz from its origins to the present day. Prerequisite: MUSC 232 or consent of instructor.

MUSC 527-528 JAZZ ARRANGING I, II (3, 3) Study and practice of arranging of standard material for jazz ensembles. Prerequisite: MUSC 232 or consent of instructor.

MUSC 531 ADVANCED CHORAL AND INSTRUMENTAL ARRANGING (3) Advanced arranging techniques including the scoring of original and other works for various combinations of instruments and/or voices. Prerequisite: MUSC 335 or equivalent, or consent of instructor.

MUSC 537 ADVANCED COMPUTER APPLICATIONS IN MUSIC (3) Creative use of computer applications: sequencing, notation, synthesis applications, digital audio recording, editing, synchronization with film/video. Prerequisite: MUSC 135 or consent of instructor.

MUSC 542 VOCAL PEDAGOGY (3) Theory and practice of the teaching of singing by national styles, historical approaches and the physiology of the voice. Prerequisites: MUSC 245 and MUSC 246, or consent of instructor.

MUSC 543 INSTRUMENTAL PEDAGOGY (1) The art and science of teaching musical instruments in the applied setting.

MUSC 560 PIANO PEDAGOGY (3) Teach the goals and steps in the art of teaching beginner, elementary and intermediate piano.

MUSC 562 GUITAR PEDAGOGY (3) Art and science of teaching guitar, historical and current practices, and observations. Private studio organization and administration. Prerequisite: 200-level guitar private lessons or consent of instructor.

MUSC 571-579 SPECIAL TOPICS IN MUSIC (3) Consideration of central topic in music with different topic each term. May be repeated for credit provided a different topic is covered. Prerequisite: MUSC 232 or consent of instructor.

MUSC 582 RECORDING TECHNIQUES II (3) Emphasizes signal processing equipment and how it relates to live recording from the concert stage. Includes experience recording live concerts in the Center for the Arts Concert Hall. Prerequisites: MUSC 281 or consent of instructor.

MUSC 593 INDEPENDENT RESEARCH IN MUSIC (1-3) Supervised research in a selected topic in music culminating in an extended paper. May be repeated for credit. Prerequisite: MUSC 302 or consent of instructor.

MUSC 597 INTERNSHIP IN MUSIC (1-6) Field experience with working professionals. Prerequisite: Consent of music internship coordinator. S/U grading.

MUSC 621 PERSPECTIVES IN MUSIC HISTORY (3) An examination of important issues in the history of Western music, focusing on the philosophies of music historians, the evolution of pertinent genres and forms, the social background to musical practice and recent developments in musical scholarship. Prerequisite: Graduate standing in Music.

MUSC 629 CONCEPTS OF MUSIC THEORY (3) The theoretical and analytical principles of tonal music. Emphasis on writing and listening skills. Prerequisite: Graduate standing in Music.

MUSC 631 ADVANCED THEORY (3) Continued development of skills in more advanced melodic, harmonic and rhythmic aspects of music through hearing, playing and writing. Prerequisite: MUSC 232 or consent of instructor.

MUSC 670-679 SPECIAL TOPICS IN MUSIC (3) In-depth study of a selected topic in music. Specific requirements and prerequisites will vary with each topic and will be designated by the department each time a topic is scheduled. Approval by the graduate adviser is required. Each topic may be taken as a separate course.

MUSC 671 SPECIAL TOPICS IN MUSIC LITERATURE (3) Consideration of a central topic of music literature with a different topic selected each term. May be repeated for credit. Prerequisites: MUSC 232 or consent of instructor.

MUSC 679 APPLIED CONDUCTING LESSONS (1-2) Private applied lessons in conducting, including study of repertoire as well as preparation and implementation of all aspects of musical leadership and instruction to a musical ensemble. May be repeated for a maximum of 4 units. Special permit required. Prerequisite: MUSC 329 Instrumental

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Conducting or equivalent, or MUSC 327 Choral Conducting or equivalent, consent of instructor.

MUSC 685 MUSIC BIBLIOGRAPHY AND RESEARCH (3) Investigation of music bibliography, research methodology and the writing process. Independent research projects and experience in writing research papers, reviews and essays in musical criticism.

MUSC 797 GRADUATE RECITAL (1) Recital performance for Master of Music graduation requirement. Prerequisites: A minimum of 24 units completed toward the degree and permission of the graduate program director. Special permit required.

MUSC 880 GRADUATE PROJECT IN MUSIC (1) Fulfills a graduation requirement for M.S. in Music Education. Projects include recital, composition, research paper or practicum as appropriate to the needs and interest of the student. Prerequisites: A minimum of 21 graduate units completed and permission of the graduate program director in Music Education. Special permit required.

MUSC 885 PROJECT CONTINUATION (1) Continuation of graduate project. Prerequisite: Previous registration for project work.

MUSC 897 MASTER'S THESIS IN MUSIC (6)

MUSC 898 THESIS (3) The previous course, MUSC 897, taken over two consecutive terms.

MUSC 899 THESIS CONTINUUM (1)

MUSIC APPLIED (MUSA) ENSEMBLES (1)

The study and performance of literature for the designated ensemble. Open to all students by audition or permission of instructor. May be repeated for credit depending on concentration.

Vocal Ensembles

- MUSA 650 Choral Society (no audition required)
- MUSA 651 Chorale
- MUSA 652 Chamber Singers
- MUSA 653 Music for the Stage
- MUSA 654 Music Theater Chorus
- MUSA 668 Early Music Ensemble
- MUSA 684 Jazz Vocal Ensemble

Large Instrumental Ensembles

- MUSA 660 Marching Band (no audition required)
- MUSA 661 Symphonic Band
- MUSA 662 Orchestra
- MUSA 663 Opera Orchestra
- MUSA 664 Music Theater Orchestra
- MUSA 665 Wind Ensemble

Small Instrumental Ensembles

- MUSA 659 Pep Band
- MUSA 666 Woodwind Ensemble
- MUSA 667 Chamber Music Ensemble
- MUSA 668 Early Music Ensemble
- MUSA 669 Brass Ensemble
- MUSA 670 World Music Ensemble
- MUSA 671 Clarinet Choir
- MUSA 672 Percussion Ensemble
- MUSA 673 Saxophone Ensemble
- MUSA 674 Solo and Ensemble
- Accompanying
- MUSA 675 Guitar Ensemble

Jazz Ensembles

- MUSA 681 Jazz Ensemble Big Band
- MUSA 682 Jazz Ensemble Combo
- MUSA 683 Jazz Ensemble Guitar
- MUSA 684 Jazz Ensemble Voice
- MUSA 685 Jazz Ensemble Latin

MUSIC APPLIED (MUSA) PRIVATE LESSONS (1-3) Private studio and master class instruction in instrumental techniques and performance. The Music Department Applied Music Handbook lists criteria for audition and performance standards. Successful completion of a jury examination is required at the end of each term. May be repeated for credit depending on concentration. Prerequisites: Audition and permission of the graduate program director.

tor. Special permit only.

Note: Additional fees apply. Contact the department for fee policy, 410-704-2836.

Composition

MUSA 600 Composition

Vocal

MUSA 603 Voice

Keyboard

MUSA 605 Piano

MUSA 606 Organ

MUSA 607 Harpsichord

Percussion

MUSA 610 Snare Drum

MUSA 611 Mallets

MUSA 612 Timpani

MUSA 613 Multiple Percussion

Brass

MUSA 620 Trumpet

MUSA 621 Trombone

MUSA 622 French Horn

MUSA 623 Tuba

Woodwinds

MUSA 625 Flute

MUSA 626 Clarinet

MUSA 627 Oboe

MUSA 628 Bassoon

MUSA 629 Saxophone

Strings

MUSA 630 Violin

MUSA 631 Viola

MUSA 632 Cello

MUSA 633 String Bass

MUSA 634 Harp

Guitar

MUSA 635 Classical Guitar

MUSA 636 Other Fretted Instruments

Jazz/Commercial

MUSA 640 Jazz/Commercial Guitar

MUSA 641 Jazz/Commercial String Bass

MUSA 642 Jazz/Commercial Piano

MUSA 643 Jazz/Commercial Drums

MUSA 644 Jazz/Commercial Trumpet

MUSA 645 Jazz/Commercial

Saxophone

MUSA 646 Jazz/Commercial Trombone

MUSA 647 Jazz/Commercial

Electric Bass

MUSA 648 Jazz/Commercial Voice

MUSIC EDUCATION (MUED)

MUED 601 CURRENT TRENDS IN MUSIC AND MUSIC EDUCATION (3) Current philosophies and objectives of music scope and sequence of music curricula (vocal and instrumental) in the schools. Prerequisite: Consent of program director.

MUED 603 MUSIC IN SPECIAL EDUCATION (3) Musical curriculum materials and activities addressing the needs of handicapped students in school settings. Teacher skill development in adapting lesson plans, developing Individual Education Programs and program implementation. Prerequisite: MUED 307, MUED 309 or permission of chairperson.

MUED 605 SEMINAR IN COMMUNITY MUSIC (3) Exploration of the teaching and performance of music in diverse settings: community music schools, retirement communities, preschool/home school settings, workplace performance groups, intergenerational settings and community-based ensembles. Includes philosophy, pedagogy and practical issues such as funding, as well as aspects of adult and intergenerational learning. Prerequisite: Bachelor's degree in Music or Music Education.

MUED 617 CHORAL WORKSHOP IN ELEMENTARY AND SECONDARY SCHOOL MUSIC (2) Observing, conducting and evaluating of rehearsals of the chorus made up of workshop participants. Includes sources and selection of music, audition and classification of voices, pedagogy, rehearsal techniques, choral arranging and program building and programming. Prerequisite: MUSC 327.

MUED 630 DALCROZE-ORFF-KODALY FOR THE CLASSROOM I (2) Principles of Dalcroze eurhythmics, Orff and Kodaly techniques in elementary and middle school programs. Appropriate for vocal-general and instrumental teachers. Prerequisite: Bachelor's degree in Music or Music Education.

MUED 631 DALCROZE-ORFF-KODALY FOR THE CLASSROOM II (2) Principles of beginning and intermediate level Dalcroze, Orff and Kodaly techniques in the vocal-general and instrumental music program exploring practical techniques and materials using an eclectic approach to teaching concepts and skills. Prerequisite: MUED 630 or consent of instructor.

MUED 632 DALCROZE PRACTICES (2) Methods and materials incorporating eurhythmics, solfege, improvisation and basic keyboard improvisatory skills. Prerequisite: MUED 630 or consent of instructor.

MUED 633 ORFF TECHNIQUES (2) Methods and materials incorporating improvisation, orchestration, mallet technique, speech chants, movement and use of Orff instruments. Prerequisite: MUED 630 or consent of instructor.

MUED 634 KODALY TECHNIQUES (2) Methods and materials incorporating sight singing exercises, rhythm and movement, folk songs and singing games within an eclectic curriculum. Prerequisite: MUED 630 or consent of instructor.

MUED 635 THEORY, PEDAGOGY AND CURRICULUM DEVELOPMENT IN DALCROZE, ORFF, KODALY (3) Teaching the pedagogy of musical elements and concepts using Dalcroze, Orff and Kodaly techniques and materials. Prerequisites: MUED 631, MUED 632 and MUED 633, MUED 634, or consent of instructor.

MUED 639 ADVANCED WORKSHOP IN ELEMENTARY AND MIDDLE SCHOOL GENERAL MUSIC (2) Observation, develop-

ment and evaluation of current materials and methodology in elementary and middle school general music. Prerequisite: MUED 307, MUED 309 or equivalent.

MUED 661 SEMINAR IN INSTRUMENTAL MUSIC (3) Comparative analysis of current methods and materials used in schools and colleges. Instrumental conducting and repertoire. Construction of acoustical properties and basic techniques of instruments. Problems of ensemble and balance. Intonation, precision and interpretation are studied. Materials and music literature for bands, orchestras and small ensembles are evaluated. Prerequisite: Admission to graduate program.

MUED 662 SEMINAR IN CHORAL (VOCAL) MUSIC (3) Comparative analysis of current methods and materials used in schools and colleges. Choral conducting and repertoire. Style interpretation, tone quality, diction, rehearsal and conducting techniques are analyzed. Prerequisite: Consent of program director.

MUED 670-684 WORKSHOPS IN MUSIC EDUCATION (1-3) Selected topics in music education. Can be repeated for credit when topics differ. Prerequisite: Graduate standing.

MUED 695 RESEARCH METHODS IN MUSIC EDUCATION (3) The application of research to problems in the field of music education. Prerequisites: Admission to the graduate program in Music Education and consent of instructor.

NURSING (NURS)

NURS 510 SPIRITUALITY, HEALTH AND NURSING PRACTICE (3) Application of theory and research to spiritual care of diverse client populations across the life span, and development of spiritual self-care plan of the provider. Prerequisites: One clinical course in nursing; RN status; or consent of the instructor.

NURS 523 CRISIS AND STRESS MANAGEMENT (3) An integrated, comprehensive, multicomponent approach to crisis intervention in a variety of individuals, groups and settings. Prerequisite: PSYC 101 or HLTH 101.

NURS 543 PHARMACOTHERAPEUTIC AGENTS (2) Pharmacologic agents commonly used in treatment of disease states and the nursing responsibilities involved. Prerequisites: RN status, or consent of the instructor.

NURS 594 TRAVEL STUDY IN NURSING (3) Historical and contemporary sociopolitical factors that guide the delivery of health care to various population groups in other countries. Prerequisite: Permission of the instructor.

NURS 601 THEORETICAL FOUNDATIONS OF NURSING PRACTICE (3) Prepares nurses to critically analyze and apply a wide range of nursing and related theories to research and clinical practice in order to develop a comprehensive and holistic approach to care. Prerequisite: Consent of instructor.

NURS 603 NURSING RESEARCH (3) Prepares the nurse to identify clinical problems, critically evaluate nursing research, develop a research design and apply research in practice. Prerequisites: Undergraduate research and/or statistics course and consent of instructor.

NURS 605 NURSING SYSTEMS IN HEALTH CARE (3) Prepares the nurse to participate in the design, implementation and management of care in a variety of health care systems, provide quality cost-effective care, and assume a leadership role in the managing of human, fiscal and physical health care resources. Prerequisite: Consent of instructor.

NURS 610 CURRICULUM DEVELOPMENT IN NURSING (3) Overview of theory and methods for the development of nursing educational delivery systems in academic and service settings.

NURS 612 TEACHING AND LEARNING IN NURSING (3) Focuses on the application of learning theory and teaching methods in the classroom and clinical environments with a particular emphasis on meeting the needs of diverse student populations. Includes instructional technology and micro-teaching experiences.

NURS 700 COMMUNITY-BASED NURSING (3) Focuses on application of epidemiological frameworks and concepts in health promotion, environmental health and disease prevention with diverse groups across the life span. Emphasis will be placed on the nursing care of at-risk and vulnerable populations in community-based settings. Prerequisite: NURS 601.

NURS 710 EVALUATION IN NURSING EDUCATION (3) Emphasis is placed on the evaluation of student performance, teaching, courses and programs. Assessment measures of learner outcomes, faculty effectiveness and program quality will be explored. Prerequisites: NURS 712, NURS 610 and NURS 612 (may be taken concurrently).

NURS 712 ADULT LEARNER (3) Introduction to learning in adulthood, including context, development, process and practice. Prerequisite: Consent of instructor.

NURS 800 ADVANCED COMMUNITY-BASED NURSING PRACTICE (3-6) A clinical practicum designed to enhance the nurse's previous learning and experiences while fostering the development of new nursing knowledge and skills in community-based settings with diverse populations. Includes a weekly seminar. Prerequisite: NURS 700.

NURS 801 CLINICAL PRACTICUM IN COMMUNITY-BASED NURSING (3) This course is designed to develop expertise as a community based nurse clinician. Prerequisite: NURS 800.

NURS 810 TEACHING PRACTICUM (3) A practicum designed to apply new knowledge and skills in teaching and learning in academic

or service settings. Self-assessment of teaching, discussion of the nurse educator role, and exploration of issues related to the teaching-learning environment will occur in weekly seminars. Prerequisites: NURS 612, NURS 710 (may be taken concurrently).

NURS 812 SEMINAR IN COMMUNITY-BASED NURSING (3) Application of knowledge from core courses and those courses selected by the student to support individual goals while making a transition to a role as and advanced community based nursing practice clinician. Prerequisites: NURS 800, NURS (812 and 801) may be taken concurrently.

NURS 897 THESIS (6) Independent research under the guidance of faculty using established methods of research appropriate to nursing practice, education or administration. Prerequisite: NURS 800.

OCCUPATIONAL SCIENCE (OSC)

OSC 742 ORIGINS AND EVOLUTION OF OCCUPATIONAL SCIENCE (3) Examination of the history of occupation and occupational performance constructs. Prerequisite: OETH 611 and consent of department.

OSC 744 PARTICIPATION AND QUALITY OF LIFE OF PEOPLE IN THEIR CONTEXT (3) Examination of theories and research for analyzing the occupations and quality of life of people within their socio-cultural context. Prerequisite: Consent of department.

OSC 746 PARTICIPATION AND QUALITY OF LIFE IN COMMUNITIES AND POPULATIONS (3) An examination of participation and quality of life from an occupational science perspective. Prerequisite: Consent of department.

OSC 770 TO 779 SPECIAL TOPICS IN OSC (1-6) Explore topics of special interest in occupational science theory and research. Prerequisites: Consent of department.

OSC 890 QUALITATIVE RESEARCH: OCCUPATION AND LIFE NARRATIVE (3) Qualitative methods used in the study of occupation and other related social sciences. Prerequisite: OETH 611, OETH 613 and consent of department.

OSC 891 INDEPENDENT STUDY IN OCCUPATIONAL SCIENCE (1-6) In-depth investigation and development of scholarly product. Prerequisite: Consent of department.

OSC 892 DIRECTED READINGS IN OCCUPATIONAL SCIENCE (3) Readings in selected topic in occupational science. Special permit required. Prerequisites: At least one 700-level OSC course and consent of department.

OSC 895 APPLIED PROJECT: EVERYDAY LIFE AND DIMENSIONS OF OCCUPATION (3) Design and implementation of an applied research project in occupation that has the potential to be developed into a dissertation topic. Prerequisites: OSC 742, 744, 746, 890, and other 700 or above quantitative statistics course. Majors only; consent of department.

OSC 997 DISSERTATION RESEARCH (1-9) Design, implementation and documentation of focused study of applied occupation in community systems. Must be repeated for a minimum of 12 total units until dissertation is complete in order to meet continual registration policy. Prerequisites: OSC 895 and consent of department.

OCCUPATIONAL THERAPY (OETH)

OETH 536 OCCUPATIONAL THERAPY INTERNSHIP II (6) Culminating fieldwork experience (470 hrs.) in delivery and management with differing populations and service delivery models. Prerequisites: OETH 435 and consent of the department; permit required.

OETH 570-579 SPECIAL TOPICS IN OCCUPATIONAL THERAPY (1-3) Designed to explore topics of special interest in the theory and practice of occupational therapy. Pre-

requisite: Consent of instructor. May be repeated for a maximum of 3 units.

OCTH 603 ISSUES IN OCCUPATIONAL THERAPY (3) Analysis of current issues in occupational therapy. Prerequisite: Consent of department.

OCTH 604 ACADEMIC AND CLINICAL EDUCATION (3) College/university teaching and clinical supervision strategies for the preparation of professionals in clinical disciplines. Prerequisite: Consent of department.

OCTH 605 MANAGING HUMAN RESOURCES IN OCCUPATIONAL THERAPY (3) Issues and trends: in leadership, decisionmaking styles, productivity, professional development recruitment and retention, and performance appraisal systems. Prerequisite: Consent of department.

OCTH 611 ADVANCED THEORY AND PHILOSOPHY OF OCCUPATION (3) Analysis of the theories and philosophical assumptions underlying occupation. Prerequisite: Consent of department.

OCTH 612 OCCUPATIONAL THERAPY HEALTH PROMOTION INITIATIVES IN THE COMMUNITY (3) Theory and practice of occupational therapy in health promotion in the community with special emphasis on the cultural context of the community. Prerequisite: OCTH 611 or consent of department.

OCTH 613 ADVANCED RESEARCH METHODS IN OCCUPATION-BASED PRACTICE (3) Application of qualitative and quantitative research methods. Prerequisite: Consent of department.

OCTH 621 GERIATRIC REHABILITATION (3) Older adult assessment and rehabilitation within a variety of health care systems. Prerequisite: Consent of department.

OCTH 623 EVALUATION IN PEDIATRIC OCCUPATIONAL THERAPY (3) Theory and practice of evaluation in the area of pedi-

atric occupational therapy. Prerequisite: Consent of department.

OCTH 628 CONTEMPORARY OCCUPATIONAL THERAPY PRACTICE (3) This course combines classroom preparation with a directed independent study focused on expanding and developing skills in an area of occupational therapy practice of special interest to the student. Prerequisite: Completion of one level II fieldwork and consent of department.

OCTH 631 COMMUNITY GERONTOLOGY (3) Planning and consulting for adult community programs. Prerequisite: Consent of department.

OCTH 633 OCCUPATION BASED PEDIATRIC INTERVENTION (3) Advanced intervention principles for pediatric populations, including provisions for care of children from birth to 21 years of age in health delivery systems, including the schools. Prerequisite: Consent of department, permit required.

OCTH 637 SPECIALTY INTERNSHIP (4-6) A supervised occupational therapy fieldwork experience with a population of special interest. Permit required. Prerequisites: OCTH 536 and consent of department.

OCTH 670-675 SPECIAL TOPICS IN OCCUPATIONAL THERAPY (1-3) Study of selected topics in occupational therapy. Prerequisites: Vary with each topic; consent of department.

OCTH 678 ASSESSMENT THROUGHOUT THE LIFESPAN (3) Examination, selection, administration and evaluation of a variety of measurement tools used in occupational therapy practice. Prerequisite: Consent of department.

OCTH 691 DIRECTED READINGS IN OCCUPATIONAL THERAPY (1-3) Guided review of literature to explore in-depth subjects related to occupational therapy theory and practice. Prerequisite: Consent of department.

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OCTH 692 INDEPENDENT STUDY (1-6) In-depth investigation specific to area of interest in occupational therapy. Prerequisite: Consent of department.

OCTH 781 GRADUATE SEMINAR IN OCCUPATIONAL THERAPY (3) Graduate project or thesis proposal preparation with feedback and discussion. Prerequisites: Admission to Occupational Therapy master's degree program, PSYC 687 and consent of department.

OCTH 880 GRADUATE PROJECT IN OCCUPATIONAL THERAPY (3) Implementation and documentation of a project designed in OCTH 781 that is oriented toward the application of specific techniques in occupational therapy. Prerequisites: OCTH 781 and consent of department.

OCTH 885 PROJECT CONTINUATION (1) Continuation of graduate project. Prerequisite: Previous registration for project work.

OCTH 897 THESIS (6) Original investigation using an acceptable research method and design conducted under the direction of a faculty member. Prerequisites: OCTH 781 and consent of department.

OCTH 898 THESIS (3) The previous course, OCTH 897, taken over two consecutive terms.

OCTH 899 THESIS CONTINUUM (1)

OPERATIONS RESEARCH (OPRE)

These courses are offered as part of the UB/Towson MBA programs.

OPRE 504 BUSINESS STATISTICS (3) This course covers statistical summary measures, probability, random variables and their distributions. Presents estimation and hypothesis testing, correlation and regression analysis and ANOVA, and their applications to business problems. The use of statistical data analysis is an integral part of this course. Prerequisite: Graduate standing.

OPRE 640 APPLIED MANAGEMENT SCIENCE (3) Management science approaches in organizations, including modeling and rational approaches to decision-making and their contribution to organizational effectiveness. Emphasizes analysis and communication using real-world application and cases. Topics include linear programming and its extensions, integer programming, network problems and decision analysis as applied to tactical and strategic business decisions in functional areas and interfaces among these areas. Prerequisite: Prior or concurrent enrollment in MBA core courses.

PHILOSOPHY AND RELIGIOUS STUDIES (PHIL)

PHIL 501 PHILOSOPHIES OF INDIA (3) Examination of major ideas in the Vedic, Epic, Classical darsana and modern periods. Prerequisite: One lower-level course in philosophy or consent of instructor.

PHIL 502 PHILOSOPHIES OF CHINA AND JAPAN (3) Examination of major philosophical systems through selected writings in translation. Prerequisite: One lower-level course in philosophy or consent of instructor.

PHIL 509 AESTHETICS (3) An analytical and historical examination of concepts of the nature of art, beauty, aesthetic value and aesthetic perception, and of the modes of existence of artifacts. Prerequisite: One lower-level course in philosophy.

PHIL 511 ETHICS (3) Analysis of readings from the principle classical and contemporary ethical sources, study of the basic moral concepts as found in these sources; application to contemporary moral concerns. Prerequisite: One lower-level course in philosophy.

PHIL 513 PHENOMENOLOGY (3) An examination of phenomenology as both a philosophical method and philosophical position. Themes to be considered include consciousness, the body, time and the experience of others. Primary course readings in the

works of Husserl, Heidegger, Sartre, Merleau-Ponty. Prerequisite: 6 units in philosophy.

PHIL 517 EXISTENTIALISM (3) Some of the major existentialist philosophers will be studied, e.g., Kierkegaard, Nietzsche, Heidegger, Sartre, Beauvoir. The philosophical themes of transcendence, the absurd, estrangement and anxiety will be considered. Prerequisite: 6 units in philosophy.

PHIL 522 HELLENISTIC AND MEDIEVAL PHILOSOPHY (3) This course will deal with the philosophical schools of the Hellenistic and Roman periods, viz., Stoicism, Epicureanism, Scepticism and Neo-Platonism, and with the two main Christian philosophies of the Middle Ages, viz., Augustinianism and Thomism. Prerequisite: One lower-level course in philosophy.

PHIL 524 MODERN PHILOSOPHY (3) The history of philosophy, beginning with Descartes through the 19th century. Prerequisite: One lower-level course in philosophy.

PHIL 525 SCHOOLS OF CONTEMPORARY PHILOSOPHY (3) A survey with varying emphasis on a number of such contemporary philosophical positions as pragmatism, phenomenology, logical positivism, the analysts, neo-Aristotelianism, the philosophers of science and the existentialists. Prerequisite: One lower-level course in philosophy.

PHIL 526 AMERICAN PHILOSOPHY (3) History of the main currents of American philosophical thought as exemplified in such writers as Edwards, Emerson, Pierce, James, Royce, Dewey and Whitehead. Prerequisite: One lower-level course in philosophy.

PHIL 530 PHILOSOPHY AND FILM (3) Philosophical insights on issues such as knowledge, personal identity, reality, freedom, justice, death, love, violence and happiness as they are represented in the film medium; examination of how films reflect the values of the cultures in which they are embedded and how they participate in the formation of val-

ues. Prerequisite: One philosophy course or permission of instructor.

PHIL 531 CONCEPTS OF WOMAN: A HISTORICAL APPROACH (3) Various concepts which philosophers have used to define women. A historical survey approach, with readings from Plato, Aquinas and others, and ending with Beauvoir. Prerequisite: One lower-level course in philosophy.

PHIL 532 FEMINIST PHILOSOPHY (3) Contemporary problems, including redefinition of traditional areas of philosophy and creation of new issues for investigation. Prerequisite: One lower-level philosophy course or consent of instructor.

PHIL 539 THEORY OF KNOWLEDGE (3) A historical and systematic approach to the truth, value and elements of the forms of human knowledge. The theories of major philosophers will be studied. Prerequisite: One lower-level course in philosophy.

PHIL 540-549 PHILOSOPHICAL SYSTEMS (3) The study of a major philosophical system or position, classical or modern, and its important proponents. Prerequisites: Two courses in philosophy.

PHIL 551 PHILOSOPHY OF RELIGION (3) Exposition of various approaches to the philosophy of religion with an analysis of the major issues on which they differ and agree. Prerequisites: Two courses in philosophy or religion.

PHIL 555 INTRODUCTION TO THE NEW TESTAMENT (3) Study of the literature, history, sociology and theology of the early Christian movement focusing on canonical and non-canonical materials. Prerequisite: One lower-level course in philosophy or religious studies.

PHIL 557 TOPICS IN COMPARATIVE RELIGION (3) Exploration of culturally diverse religious traditions in terms of a specified theme, topic or problem. May be repeated

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for credit. Prerequisite: One lower-level course in philosophy or religious studies.

PHIL 561 BIOMEDICAL ETHICS (3) A search for guidelines in such moral problems as abortion, the care of the dying, organ transplants, informed consent in therapy and experimentation, adequate health care and its just distribution, control of human behavior by drugs, surgery, etc. Test-tube reproduction, population control, genetic engineering and counseling. Prerequisite: One lower-level course in philosophy or consent of instructor.

PHIL 563 BUSINESS ETHICS (3) Economics is one of the "moral sciences" in so far as it deals with an important sphere of human activity which intends a good. This course will institute a philosophical reflection on economic ideas as they appear in the three main categories of opinion, viz., conservative, liberal and radical. Attention will be drawn to the epistemological, ethical and metaphysical presuppositions of these traditions. Prerequisite: One lower-level course in philosophy.

PHIL 570-579 PHILOSOPHICAL PROBLEMS (3) A consideration of one of the perennial interests of philosophy. Prerequisites: Two courses in philosophy.

PHIL 580-589 PHILOSOPHICAL TOPICS (3) Courses offered under this title will be of variable content. Topics of traditional philosophical interest or of philosophical problems in other areas of knowledge or of contemporary interests will be offered. Prerequisite: One lower-level course in philosophy.

PHYSICAL SCIENCE (PHSC)

PHSC 501 ADVANCED LABORATORY IN PHYSICAL SCIENCE (2) Exacting laboratory work of an advanced nature under the guidance of the physical science staff. Each student will present and defend his or her work at a seminar. May be repeated for a maximum of 6 units. Prerequisite: Consent of instructor.

PHSC 503 EARTH-SPACE SCIENCE (3) Physical science principles applied in the study of earth and space. Emphasis on experimental and discovery approaches. Prerequisite: PHSC 101.

PHSC 505 FUNDAMENTAL CONCEPTS IN THE EARTH SCIENCES (3) Principles of astronomy, geology and related earth sciences. Methods of investigation employed by earth scientists. Observations in the planetarium and field studies in the Baltimore area. Two lecture hours and one two-hour laboratory period. No credit allowed if student has taken ASTR 161 and/or PHSC 121. Prerequisite: GEOL 101 or equivalent.

PHSC 511 PHYSICAL SCIENCE FOR TEACHERS (3) An in-service course for teachers in the elementary and/or junior high school designed to develop physical science concepts. Emphasis will be placed on developing these concepts through laboratory work. Prerequisite: Teaching experience.

ASTR 561 GENERAL ASTRONOMY II (3) Stars, stellar systems, galaxies and cosmology. Emphasis in determination of the distance scale and modern trends in astronomy. Prerequisite: ASTR 161 General Astronomy I or equivalent.

PHSC 570-579 SPECIAL TOPICS IN PHYSICAL SCIENCE (1-4) The study of special topics in the areas of physical science. Special topics will be determined by their need for study and relevance to existing courses. May be repeated for credit provided a different topic is covered. Prerequisite: Consent of instructor.

PHSC 594 TRAVEL STUDY (1-3) A detailed investigation of field problems and phenomena. Locations and topics to be selected by the department and instructors sponsoring program. May be repeated for maximum of 3 units. Prerequisite: Consent of instructor.

PHSC 595 COURSE RESEARCH IN 500-LEVEL COURSES (1)

PHYSICIAN ASSISTANT STUDIES (PAST)

PAST 601 RESEARCH METHODS IN PHYSICIAN ASSISTANT PRACTICE (3) Examination of theory and methodology for designing and coordinating qualitative and quantitative research, including data collection and analysis. Prerequisite: Admission to program.

PAST 602 ETHICS, ISSUES AND TRENDS IN PHYSICIAN ASSISTANT PRACTICE (3) This course examines professional and ethical issues, as well as legal implications, confronting the physician assistant. Effect of social, political and economic changes is also explored, together with the physician assistant role in the health care team. Prerequisite: Admission to program.

PAST 603 MEDICINE I (2) Physiological and pathological mechanisms of disease process; treatment and preventive aspects of care are included. Prerequisite: Admission to program.

PAST 604 MEDICINE II (6) Second course in physiological and pathological mechanisms of the disease process, treatment and prevention. Prerequisites: Admission to program and completion of Medicine I.

PAST 605 MEDICINE III (2) Third course in physiological and pathological mechanisms of the disease process, treatment and prevention. Prerequisites: Admission to program and completion of Medicine I and II.

PAST 606 PEDIATRICS I (2) Clinical assessment and management of disease in infant to adolescent patients. Prerequisites: Admission to program and completion of Medicine I.

PAST 607 PEDIATRICS II (2) A second course in clinical assessment and management of disease in infant to adolescent patients. Prerequisites: Admission to program and completion of Pediatrics I.

PAST 608 MEDICINE IV (6) The fourth course in physiological and pathological mechanisms of the disease process, treatment and prevention. Prerequisites: Admission to program and completion of Medicine III.

PAST 609 PHARMACOLOGY I (2) First of two courses in pharmacology dealing with initiating a monitoring routine drug therapy. Included are the principles of pharmacokinetics and pharmacodynamics. Prerequisites: Admission to program and completion of Medicine I.

PAST 610 PHARMACOLOGY II (2) The second of two courses in pharmacology dealing with initiating a monitoring routine drug therapy. Included are the principles of pharmacokinetics and pharmacodynamics. Prerequisites: Admission to program and completion of Pharmacology I.

PAST 711 RESEARCH METHODS IN PA PRACTICE II (1) A second course in Research Methods for Physician Assistant students. Development of a research proposal is emphasized. Prerequisite: PAST 601.

PAST 730 CLINICAL MANAGEMENT I (2) The first of a two-course sequence of case-based learning seminars and student grand rounds presentations. Permit required, registration limited to those admitted into the program. Prerequisites: Medicine IV, Pediatrics II, Pharmacology II and successful completion of all year 1 courses.

PAST 731 CLINICAL MANAGEMENT II (2) The second of a two-course sequence of case-based learning seminars and student grand rounds presentations. Permit required and registration limited to those admitted into the program. Prerequisites: Medicine IV, Pediatrics II, Pharmacology II and successful completion of all year 1 courses.

PAST 801 PHYSICIAN ASSISTANT GRADUATE SEMINAR (1) The first of two research project courses for Physician Assistant students. Completion and presentation of gradu-

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ate research proposal. Prerequisites: Admission to program and completion of PAST 601.

PAST 802 PHYSICIAN ASSISTANT GRADUATE PROJECT (1) Completion of research project and final presentation of finding. Taken final year of program. Prerequisites: Admission to Physician Assistant Studies Program and PAST 801 Physician Assistant Graduate Seminar.

PHYSICS (PHYS)

PHYS 507 INTRODUCTORY MATHEMATICAL PHYSICS (3) As the mathematical maturity of the students will allow, selected topics will be examined such as the generalized expressions for forces and potentials, vector analysis, applications of Fourier series and complex variables, and solutions of the harmonic oscillator and wave equations. Three lecture hours. Prerequisites: PHYS 212 or PHYS 242; MATH 274.

PHYS 511 MODERN PHYSICS (4) Special relativity, the quantum theory, atomic structure and spectra, and nuclear structure and reactions are the main topics covered by the course. Other topics that may be covered involve molecular, solid state, and high energy physics. Four lecture hours. Prerequisites: MATH 274; PHYS 212 or PHYS 242.

PHYS 533 BASIC ELECTRONICS (4) Circuit components, characteristics of semiconductors, electrical measurements, method of circuit analysis, electronic devices. Three lecture hours and one three-hour laboratory. Prerequisite: PHYS 212 or PHYS 222 or consent of instructor.

PHYS 534 DIGITAL ELECTRONICS (4) Subjects covered will be basic concepts of digital electronics such as: gates, logic modules, truth tables, digital codes, sequential systems, semiconductor memories, decade counters, etc. The laboratory program is designed to give students firsthand experience on the material covered in lecture using inte-

grated circuits and LED display systems. Two hours lecture and three hours laboratory. Prerequisite: MATH 115 or equivalent.

PHYS 535 ELECTRONICS (3) Principles of transistors with emphasis on their design and construction and an introduction to logic circuits. Two lecture hours and one two-hour laboratory. Prerequisites: PHYS 305 and PHYS 335.

PHYS 537 INTRODUCTION TO MICROPROCESSOR-BASED DIGITAL SYSTEMS (3) Introductory course on basic microcomputer concepts. Topics covered include basic structure and organization of microcomputers, digital logic design, assembly language programming, memory elements and applications. Hardware-oriented experiments will be conducted providing practical experience in interfacing the microcomputer to a variety of instruments and input-output devices. Two hours lecture and two hours laboratory. Prerequisite: PHYS 337.

PHYS 541-542 INTERMEDIATE PHYSICS LABORATORY, I, II (3, 3) First term: the measurement of several fundamental physical constants. Exploration of classical and modern research methods: lasers, holography, optical and nuclear spectroscopy. Second term: several advanced experiments and a research project. Familiarization with machine shop procedure, vacuum and other experimental techniques. Five laboratory hours. Prerequisite: PHYS 311 or concurrently (Lab II Prerequisite: PHYS 341.)

PHYS 545 LASERS AND HOLOGRAPHY (3) The wavefront-reconstructions, laser theory, the properties and making of holograms, and the applications of lasers and holography will be covered. Special projects will be assigned to students depending upon their individual theoretical and experimental backgrounds. Prerequisite: PHYS 243 or consent of instructor.

PHYS 550 MECHANICS (4) Systems of coordinates, kinematics and transformations; new-

tonial dynamics of particles; linear systems, oscillations and series techniques; calculus of variations and the Lagrangian and Hamiltonian formulations; application of Lagrangians to gravitation/central force motion. Optional; nonlinear oscillations. Prerequisite: PHYS 242, PHYS 307 or consent of instructor.

PHYS 551 MECHANICS II (3) Continuation of PHYS 351. Rotation transformations; perturbation and Green's function techniques in solution of oscillating systems; collisions; rotating frames of reference and dynamics of rigid bodies (including Euler's angles, precession, nutation); theory of coupled small oscillations. Optional; special relativity; continuum mechanics. Prerequisite: PHYS 351.

PHYS 552 THERMODYNAMICS AND KINETIC THEORY (3) Principles and laws of classical thermodynamics applied to simple irreversible processes, including chemical, elastic, electric and magnetic phenomena; thermodynamic functions and Maxwell's relations; the conservation equations in elementary kinetic theory; fluctuations and irreversible transfer effects. This course may be taken concurrently with PHYS 243 or by permission. Three lecture hours. Prerequisites: PHYS 212 or PHYS 243, and MATH 274.

PHYS 553 PHYSICAL OPTICS (3) Electromagnetic theory of light, wave solutions, interference, diffraction, scattering, radiation from coherent and incoherent sources, elementary theory of masers and lasers. Three lecture hours. Prerequisite: PHYS 354 or consent of instructor.

PHYS 554 ELECTRICITY AND MAGNETISM (4) Electrostatics, magnetostatics and electromagnetic radiation, including Divergence Theorem and Stoke's Theorem, electrostatics in free space and dielectric materials, the Biot-Savart Law, the magnetic vector potential, inductance and electromotance, magnetic materials, Maxwell's equations in free space and in materials, boundary value problems (Snell's and Fresnel's Laws). Prerequisite: PHYS 243, PHYS 307 or consent of instructor.

PHYS 555 INTRODUCTORY QUANTUM MECHANICS (3) The Schroedinger equation, states of one particle in one dimension, potential barrier problems in one dimension, the harmonic oscillator, system of particles in one dimension, motion in three dimensions, angular momentum, spin, application to atomic physics. Prerequisites: PHYS 311, PHYS 351 or concurrently.

PHYS 556 INTRODUCTION TO STATISTICAL MECHANICS (3) Distribution functions, microcanonical, canonical and grand canonical ensembles, the partition function and thermodynamics relations. Fermi-Dirac and Bose-Einstein statistics, some simple models and applications, the Maxwell-Boltzman transport equation and the hydrodynamic equation, transport coefficients. Three lecture hours. Prerequisite: PHYS 455.

PHYS 559 NUCLEAR PHYSICS (3) A lecture and problem course dealing on an introductory level concerning experimental and theoretical method for the study of nuclear structure. Topics to be covered include: properties of nuclei, electromagnetic transition and beta decay; nuclear models, nuclear reactions and two-body interactions. Prerequisite: PHYS 311, PHYS 307 or consent of instructor; offered in alternate years.

PHYS 570-579 SPECIAL TOPICS IN PHYSICS (1-4) Special topics in the area of physics. Special topics will be determined by current interests of the faculty and the needs of the curriculum. Prerequisite: Special permit from the department.

PHYS 585-586 PHYSICS SEMINAR I, II (1, 1) Students participate in colloquia on topics of current interest in physics research under guidance instructor. One lecture hour. Prerequisite: Senior standing or consent of instructor.

PHYS 590 INDEPENDENT STUDY IN PHYSICS (1-4) Prerequisites: At least junior status and one course in the Physics department. May be repeated for a maximum of 6 units.

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PHYS 591 DIRECTED READINGS (1-4)

Prerequisites: At least junior status and one course in the Physics department. May be repeated for a maximum of 6 units.

PHYS 595-596 RESEARCH PROBLEMS IN PHYSICS (1-3)

Individual project in any branch of physics. Students can choose either to work on projects or in areas suggested by physics faculty. At the completion of a project, the student must write a formal research paper on the work done. Students may register for this more than once but at different levels. Prerequisite: Permission of the instructor who will direct the proposed work.

POLITICAL SCIENCE (POSC)

POSC 503 THEORY OF INTERNATIONAL POLITICS (3)

The theories of mutual relations of states. Elements of national power; international politics as a struggle for power. Restraints upon the struggle for power. Prerequisite: HIST 103 or POSC 107, or consent of instructor.

POSC 505 URBAN GOVERNMENT AND POLITICS (3)

The political history of American cities from the 18th century through the recent reform movement. City charters, home rule, types of executives, political machines and the metropolitan area. Prerequisite: POSC 103.

POSC 506 SIMULATION AND GAMES IN POLITICAL SCIENCE (3)

Political decisions using rational choice and game theory. Discussion of voting methods, public goods and paradoxes of collective choice, using computer simulations and games. Prerequisite: One upper-level (300 or 400) political science course or consent of the instructor.

POSC 507 CONTEMPORARY INTERNATIONAL POLITICS (3)

Computer simulation (conducted jointly with colleges and universities throughout the world) used to study the formulation and implementation of contemporary international politics. Prerequisite: POSC 107, POSC 303 or consent of instructor.

POSC 508 COMPARATIVE GOVERNMENT OF FOREIGN POWERS: THE WESTERN WORLD (3)

Examination of the problems of modernization and stable constitutional rule in England, France, Italy and Germany. Prerequisite: POSC 101, POSC 105 or consent of instructor.

POSC 509 COMPARATIVE POLITICAL SYSTEMS (3)

Attempt to bring together the analytical concepts and methodological techniques that may be applied to the study of political systems in a comparative sense. Prerequisite: POSC 103, POSC 105 or consent of instructor.

POSC 512 THE LATIN AMERICAN POLICY OF THE UNITED STATES (3)

Analysis of the Latin American policy of the United States from the Monroe Doctrine to the present. Emphasis will be on historical, political, economic and security factors in the ebb and flow of inter-American relations. Prerequisite: POSC 101, POSC 137 or consent of instructor.

POSC 514 PUBLIC ADMINISTRATION (3)

Administration as a central element of contemporary society, with special reference to the problems of government organization, control, personnel, finance and public relations. Prerequisite: POSC 103.

POSC 515 THE PRESIDENCY (3)

A discussion of the origin of the office, the selection of the president and policy making in the executive branch. Prerequisite: POSC 103.

POSC 516 CONGRESS (3)

An investigation of the relations of Congress with the other branches of government and with political parties and interest groups. Also examines the relationships between members of Congress and their constituencies as well as the internal dynamics of Congress. Prerequisite: POSC 103.

POSC 517 AMERICAN POLITICAL PARTIES (3)

Origin and development of the American two-party system. The activities of pressure groups and organizations and their

effects upon the party system. Prerequisite: POSC 103 or consent of instructor.

POSC 518 CONSTITUTIONAL LAW AND POLITICS (3) The nature and origins of the Constitution: judicial review, separation of powers, federalism and the commerce clause. Prerequisite: POSC 101 or POSC 103.

POSC 519 CIVIL RIGHTS AND CIVIL LIBERTIES: THE FIRST AND FOURTEENTH AMMENDMENTS (3) The constitutional guarantees of freedom of speech, religious liberty, free assembly and equal protection. Prerequisite: POSC 101 or POSC 103.

POSC 520 CONSTITUTIONAL PROTECTIONS: PERSONAL LIBERTY AND THE RIGHTS OF THE ACCUSED (3) Personal Liberty in the home and the person in regard to individual decision making and criminal justice. Prerequisite: POSC 101 and POSC 103.

POSC 521 POLITICS AND ENVIRONMENTAL POLICY (3) Analysis and investigation of U.S. environmental problems from a political perspective. Prerequisite: POSC 103 or consent of instructor.

POSC 527 POLITICAL THEORY I (3) Political thought in the West from the Greeks to the end of the 16th century. Prerequisite: POSC 101 or consent of instructor.

POSC 528 POLITICAL THEORY II (3) Political philosophers and their writings since the 16th century. Attention given to the conflict of ideologies in the 20th century. Prerequisite: POSC 101 or consent of instructor.

POSC 532 UNITED STATES-RUSSIAN RELATIONS (3) Relations between the United States and Russia. Emphasis on Soviet and post-Soviet periods, nationalities, democratization and creation of market economics. Prerequisite: Any 100-level political science course or consent of instructor.

POSC 537 CASTRO AND THE CUBAN REVOLUTION (3) A discussion of the factors that led up to the Castro Revolution in 1959 and the subsequent impact of the creation of the first socialist state in the Western Hemisphere. Prerequisite: POSC 355, POSC 357 or consent of instructor.

POSC 541 CONTEMPORARY UNITED STATES-WESTERN EUROPEAN RELATIONS (3) Emphasis will be on NATO, the European Economic Community and the Anglo-American efforts to create an Atlantic partnership between Europe and the United States. Prerequisite: POSC 103, POSC 105 or consent of instructor.

POSC 550 INTEREST GROUPS AND PUBLIC POLICY (3) The structure, organization, objectives and activities of interest groups and their impact on public policy and campaign financing. The access and influence of groups in lobbying and campaign financing. Prerequisite: POSC 103 or consent of instructor.

POSC 551 THE GOVERNMENT AND POLITICS OF LATIN AMERICA (3) An examination of the informal and formal rules of the political "game" in Latin America with an emphasis on four types of political systems found in contemporary Latin America: democratic reformist, revolutionary, populist and military authoritarian. Prerequisite: POSC 101, POSC 105 or consent of instructor.

POSC 555-556 INTERNATIONAL LAW AND ORGANIZATION I, II (3, 3) An examination of the theories and the development of international law up to the present. The character of the modern state system, the role of international organizations and international law, and the resort to force. Prerequisite: 15 units in political science including POSC 303, or consent of instructor.

POSC 557 SEMINAR: USE OF FORCE IN INTERNATIONAL LAW (3) The course will examine the use of force as an instrument of foreign policy by various states and survey the legal restraints on its use. Prerequisite: 15 units

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in POSC including POSC 303, or consent of instructor.

POSC 564 JUDICIAL SYSTEM (3) Roles, functions, and operations of American judicial system. Examining ideology of law and justice, politics of criminal processing and consequences of legal decisions. Prerequisite: POSC 103 or consent of instructor.

POSC 567 POLITICS AND THE BUDGETARY PROCESS (3) Analysis of the budgetary process. Prerequisite: POSC 375 or consent of instructor (not open to students who have successfully completed the course as a special topic POSC 470-479).

POSC 570-579 SPECIAL TOPICS IN POLITICAL SCIENCE (3) Examination of current topics in political science. The content of the course will depend upon mutual faculty and student interest. Prerequisite: Any 100-level POSC course or consent of instructor.

POSC 580 THE SUPREME COURT (3) Roles, behavior, structure and operations of the U.S. Supreme Court. History, politics, decision making and impact of cases. Prerequisite: POSC 103 or consent of instructor.

POSC 581 SEMINAR: PUBLIC POLICY ANALYSIS (3) Theoretical and practical approaches in the analysis of policy formulation, implementation and evaluation. Prerequisites: 15 units in POSC including POSC 301 and one upper-level course; or consent of instructor.

POSC 582 SEMINAR IN POLITICAL SCIENCE (3) Various methods and techniques of research in political science, culminating in the preparation of a seminar paper. Prerequisites: 15 units in POSC including POSC 301 and one upper-level course; or consent of instructor.

POSC 583 SEMINAR: POLITICS AND THE NEWS MEDIA (3) Relationship between government and news media. Considers such topics as White House operations, the First Amendment, government efforts to control the

news, and efforts by the media at self-regulation. Prerequisites: 15 units in POSC including POSC 301 and one upper-level course; or consent of instructor.

POSC 585 DEMOCRATIC THEORY SEMINAR (3) Traces democratic theory from its 16th-century origins and analyses variants which have been proposed since that time. Prerequisite: 15 units in POSC including POSC 301 or consent of instructor.

POSC 586 SEMINAR: JUSTICE AND THE LAW (3) Central legal, political and moral questions concerning justice and the law. Prerequisite: POSC 301 or consent of instructor.

POSC 588 SEMINAR: TOPICS IN PUBLIC POLICY (3) Focus on policy areas of contemporary interest and significance. Prerequisites: 15 units in POSC including POSC 301 and one upper-level course; or consent of instructor.

POSC 590 INDEPENDENT STUDY (1-3) Individual and supervised study in selected areas of political science. Admission by consent of instructor.

POSC 591 SEMINAR IN CONTEMPORARY UNITED STATES FOREIGN POLICY (3) An examination of the contemporary nature, basis and instruments of American foreign policy. Formulation and implementation of American Foreign policy will also be examined. Prerequisite: 15 units of POSC including POSC 107 or 303; or consent of instructor.

POSC 593 INTERNSHIP (3) Familiarizes students with the practical working of government institutions in which students combine theory and practice. No more than 3 units may be earned in any one term. Prerequisites: Junior/senior standing and consent of instructor.

POSC 641 TERRORISM AND POLITICAL VIOLENCE (3) Analysis of the role of violence in the political process and of the threat posed to localities, states, and nations from groups willing to employ political violence. Review of

current political and terrorist groups and examination of effort to address threats of political violence. Prerequisite: Graduate standing.

POSC 690 DIRECTED RESEARCH IN POSC (3) Supervised individual study and research in various topics in political science. Prerequisite: Consent of instructor.

PROFESSIONAL STUDIES (LBPS)

LBPS 601 APPROACHES TO GRADUATE RESEARCH (3) Introduction to academic research paradigms and their relation to critical issues in professional practice and communication. Must be taken with the first 9 units of degree work. Prerequisite: Admission to Professional Studies program.

LBPS 602 CULMINATING SEMINAR IN PROFESSIONAL STUDIES (3) Development, implementation and documentation of a culminating project for students enrolled in the Professional Studies graduate program. Must be taken during last term of degree work. Prerequisite: 24 units of course work in Professional Studies program.

LBPS 695 INDEPENDENT STUDY IN PROFESSIONAL STUDIES (3) Independent study under direction of graduate faculty member in area related to student's program of study. May be repeated for a maximum of 6 units. Prerequisites: Admission to graduate program, LBPS 601 and approval by graduate program director.

LBPS 796 INTERNSHIP IN PROFESSIONAL STUDIES (3) Internship with private and public organizations, work to be concerned with issues central to program of study theme. Prerequisites: admission to Professional Studies M.A. program, LBPS 601 and approval of graduate director.

PROFESSIONAL WRITING (PRWR)

PRWR 611 RHETORIC: THE PURSUIT OF ELOQUENCE (3) Concepts of rhetoric, from classical to contemporary, which have shaped persuasive and expository writing.

PRWR 612 RHETORICAL GRAMMAR (3) Study and analysis of grammar as an extension of rhetorical effectiveness. Practice in adapting grammatical structure to subject and purpose, to audience and to writer/audience relationship. Prerequisite: Admission to master's in Professional Writing (PRWR) program or consent of instructor.

PRWR 613 THEORY OF EXPOSITION (3) Exposition as an empirically based model for factual writing; conventions of diction, sentence form, paragraph and organization; techniques of verifiability and probability; adaptability to different audiences, fields of knowledge, and public purposes; illogical and emotional distortions in expository writing. Prerequisite: Admission to PRWR program or consent of instructor.

PRWR 615 HISTORY AND DEVELOPMENT OF PROSE STYLE (3) Theory of English prose style from earliest times to the present. Prerequisite: Admission to PRWR program or consent of instructor.

PRWR 617 EDITING (3) Study of fundamental editing theory and supervised practice in editing. Also practice in copy editing, exposure to electronic editing, overview of copyright and libel laws, and instruction in publication design and production. Prerequisite: Admission to PRWR program or consent of instructor.

PRWR 619 COMMUNICATION IN THE PROFIT/NONPROFIT SECTORS (3) Communication process, with special emphasis on writing, within the profit/nonprofit organization. Theories of organization, management styles and relationship of written messages to the function of climate of the profit/nonprofit organization. Strategies of preparing written communication to meet internal and external

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needs. Prerequisite: Admission to PRWR program or consent of instructor.

PRWR 621 BUSINESS WRITING (3) Major forms of business and industrial writing, including correspondence, memoranda, short reports and long reports. Emphasis on audience analysis and planning of written communication to meet audience needs.

PRWR 623 TECHNICAL AND SCIENTIFIC WRITING (3) Introduction to the theory and practice of technical writing and information design. Study of rhetorical theory and empirical research supporting best-practice guidelines. Hands-on projects. Not open to students who have successfully completed WRIT 623.

PRWR 625 DESIGN, LAYOUT, AND PRODUCTION (3) A foundation for the writer wishing to master graphic communication. Students will create a portfolio of finished printing, and tour studios, typesetting and printing plants.

PRWR 627 MODERN RHETORIC (3) Current theories of rhetoric and composition, with emphasis upon the cognitive and social aspects of writing; relationships between language and abstraction, conventions of discourse communities, and various approaches to communication in a pluralistic society. Prerequisite: Admission to PRWR program or consent of instructor.

PRWR 628 DESIGNING CONTENT FOR THE WEB (3) User-centered design and development of Web content. Rhetorical theory and empirical research supporting best-practice guidelines. Projects in Web content selection, information architecture and writing style.

PRWR 633 TEACHING COLLEGE COMPOSITION (3) Prepares graduate students for teaching writing in the two-year college or freshman writing at a four-year institution. Focuses on history, theories and the practice of teaching writing. Prerequisites: Four core courses; paired with Tutoring or Internship.

PRWR 637 CREATING ONLINE HELP (3) User-centered design and development of

online help. Rhetorical theory and empirical research supporting best-practice guidelines. Hands-on hypertext projects.

PRWR 641 THEORY OF CREATIVITY (3) Current theory of creative process, its stages and its relation to the central techniques of poetry and fiction. Focus on analyzing student writings as they embody creative techniques. Prerequisite: Admission to the PRWR program.

PRWR 647 WRITING POETRY (3) Poetry writing seminar; analysis of student and published poetry, with attention to craft and readership. Overview of modern theories of poetics and poetry criticism; survey of poetry markets and publishing procedures.

PRWR 651 WRITING SHORT FICTION (3) Short-fiction workshop. Analysis of student and published fiction with attention to plot, narrative technique, characterization and readership. Survey of short-fiction markets and publishing procedures.

PRWR 653 WRITING THE NOVEL (3) Workshop on the planning, writing and publishing of the novel. Prerequisites: One 600-level PRWR course and consent of the instructor.

PRWR 655 APPLIED RESEARCH FOR INFORMATION DESIGN (3) Techniques for researching and analyzing targeted audience groups; writing up results to guide the design of information products. Rhetorical theory and empirical research supporting best-practice guidelines. Hands-on projects.

PRWR 660 SEMIOTICS FOR THE PROFESSIONAL WRITER (3) Recognizing and interpreting the symbols, signs and implied messages of cultural environments. Focus is on creating and controlling these elements in professional writing. Prerequisite: Any 600-level PRWR course or consent of instructor.

PRWR 670-679 TOPICS IN WRITING (3) Specialized focus on particular formats, theo-

ries or practices in professional writing. May be elected twice. Prerequisite: Two 600-level PRWR courses or consent of instructor.

PRWR 691 RESEARCH TECHNIQUES IN PROFESSIONAL WRITING (3) Major sources of primary and secondary information; observation, interview, survey, controlled experiment and library resources. Gathering, synthesizing and interpreting data using statistical analysis and computer programs. Techniques of poetry and fiction. Focus on analyzing student writings as they embody creative techniques. Prerequisite: Admission to the PRWR program.

PRWR 705 WRITING CREATIVE NONFICTION (3) Sustained practice in incorporating creativity into the content, form, voice, tone and style of students' vocational and avocational nonfiction prose.

PRWR 713 FREELANCE WRITING (3) Freelance writing for magazines, newspapers, corporations, associations and technical journals. Analyzing markets, creating jobs; understanding copyrights, contracts and agents.

PRWR 729 CORPORATE COMMUNICATIONS CONSULTING (3) Designing and marketing programs, and training writers in business and government. Finding clients, developing workshops, evaluating programs. Students engage in consulting activities. Prerequisite: Recommended PRWR 625.

PRWR 730 WRITING REVIEWS (3) Develop proficiency in writing and marketing reviews of books and other fine/performing arts presentations. Emphasize reviewing strategies and avenues for publication. Discuss student reviews, critical stances, role of critic and aesthetics. Rhetorical analysis reviews.

PRWR 731 SCIENCE AND ITS PUBLIC AUDIENCE (3) Addresses scientific writing as analyzable discourse, increasingly issue-oriented, public and available to nonscientists. Choosing issues, writing queries and articles.

No background in sciences necessary. Prerequisite: Admission to graduate program or consent of instructor.

PRWR 795 INDEPENDENT STUDY IN WRITING (3) Directed independent study in selected areas of graduate-level writing. Prerequisite: Permission of instructor and graduate adviser.

PRWR 797 INTERNSHIP IN PROFESSIONAL WRITING (3) Writing, editing, layout/design or communications consulting under the supervision of professionals in a work setting. Course may be taken only once. Prerequisites: Minimum of 15 units completed in the program with a 3.00 average, successful completion of portfolio requirement and special permit from program director.

PRWR 897 THESIS (6) Original writing of publishable quality, using skills emphasized in the course work of the program. Content and design of project to reflect goals and interest of student. May be based on extensive library, laboratory or field research, or may be entirely creative. Prerequisites: Completion of all course work for M.S. in professional writing, 3.50 GPA and consent of program director.

PRWR 898 THESIS (3) The previous course, PRWR 897, taken over two consecutive terms.

PRWR 899 THESIS CONTINUUM (1)

PSYCHOLOGY (PSYC)

PSYC 503 INFANT AND CHILD DEVELOPMENT (3) Advanced course reviewing historical and current changes in the areas of infancy and childhood. Emotional, cognitive and individual development will be covered in-depth. Emphasis is placed on critical analysis of research theory construction and methods. Prerequisite: PSYC203. Spring term.

PSYC 504 ADOLESCENT PSYCHOLOGY (3) Physical, emotional and intellectual devel-

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opment during adolescence; social development and heterosexuality; adolescent personality; problems of adjustment; juvenile delinquency. Prerequisite: PSYC 203. Fall and spring terms.

PSYC 509 ORGANIZATIONAL PSYCHOLOGY (3) Human relations in the work setting. Topics include theory and research concerning leadership, job satisfaction and motivation, organizational communication, group dynamics and organizational change. Prerequisites: 6 units of psychology. Fall term.

PSYC 511 TESTS AND MEASUREMENTS (3) Psychological and educational testing and evaluation. The construction, administration, interpretation and use of the various evaluative devices of aptitude and achievement. Prerequisites: PSYC 101 and PSYC 212. Fall, spring and summer terms.

PSYC 512 PSYCHOPHARMACOLOGY (3) Mechanisms of drugs, their effects on behavior, and related topics. Prerequisite: 9 units of PSYC or consent of instructor.

PSYC 513 BEHAVIOR MODIFICATION I (3) Examination and application of the basic principles of the experimental analysis of behavior, with an emphasis on the applied aspects of this modern discipline to schools, jobs, interpersonal relations and self-control. Prerequisite: 9 units of psychology or consent of instructor.

PSYC 515 MOTIVATION (3) Interaction between physiological, neurological and pharmacological aspects of motivation with environmental influences such as culture, learning and social dynamics. Issues in human motivation and emotion that will be emphasized are aggression, sex, achievement (competence) and cognitive-social influences. Prerequisites: 6 units of psychology, PSYC 203 and junior standing recommended.

PSYC 517 SENSATION AND PERCEPTION (3) A systematic investigation of the basic senses such as vision, audition, taste, smell and

touch will be undertaken. The organization of sensory input will also be emphasized. Both human and nonhuman data will be presented. Prerequisite: 9 units of psychology or consent of instructor.

PSYC 519 HUMANISTIC PSYCHOLOGY (3) Explores the "third force" in modern psychology, considering the "whole" person-in-society, focusing on existential, transpersonal and mind-body psychology. Prerequisites: PSYC 101 and PSYC 203.

PSYC 531 GROUP DYNAMICS (3) Intensive study of group interactions with emphasis upon reciprocal group influence of behavior. Prerequisite: PSYC 325 or consent of instructor. Fall term.

PSYC 532 CROSS-CULTURAL PSYCHOLOGY (3) Comparison of psychological behavior and theory in Western and non-Western cultures. Prerequisite: PSYC 101.

PSYC 535 INTERNSHIP IN PSYCHOLOGY (3-6) Placement in a community service agency to familiarize the student with its current practices. Supervised client contract will be provided. May be repeated for a maximum of 12 units but only 6 can apply to the major; the other 6 units will be used as general electives. Prerequisites: Consent of instructor and 233 units of psychology.

PSYC 539 THE INITIAL INTERVIEW (3) Clinical observation and practicum experience. Focus on interviewer and interviewee dimensions and relationship with patients. Use of tapes, seminars, and individual supervision. Prerequisites: Matriculation in Clinical Psychology Program and consent of instructor.

PSYC 540 ENVIRONMENTAL PSYCHOLOGY (3) The relationship between the physical and social environment and behavior, i.e., places, spaces and people. How man/woman construes, interprets, comprehends and feels about the environment and how the environment functions as a reflection of human needs and values. Topics include environmental

design, crowding, privacy, human territoriality, personal space. Prerequisite: PSYC 101. Fall and spring terms.

PSYC 542 ABNORMAL PSYCHOLOGY (3) Disordered personal reactions to life. Organic and functional phenomena plus therapeutic techniques. Prerequisite: 9 units psychology including PSYC 203 or consent of instructor. Fall and spring terms.

PSYC 547 SEX DIFFERENCES: PSYCHOLOGICAL PERSPECTIVES (3) Sex role/personality development is examined from various perspectives: social, cultural, evolutionary and biological. Changing conceptions with regard to women, their roles and self-concepts, are emphasized within the overall context of sex difference and similarities in behavior. Prerequisite: PSYC 203 or permission of instructor.

PSYC 549 THE PSYCHOLOGY OF LESBIAN CULTURE (3) This course develops an understanding of the impact of culture on the development of a lesbian identity and on social/emotional aspects of a lesbian identity within a psychological framework. Prerequisites: Two courses in psychology or women's studies, or consent of instructor.

PSYC 550 PERSONALITY (3) Theoretical and practical approaches to the study of personality. Introduction to psychodynamics and to methods and materials of assessment. Prerequisite: 6 units of psychology. Fall and spring terms.

PSYC 551 INTRODUCTION TO THE EXCEPTIONAL CHILD (3) Children with atypical physical, mental, social and emotional development, including the physically handicapped, the mentally retarded, the gifted and emotionally disturbed children. Prerequisite: PSYC 201, PSYC 203 or PSYC 211.

PSYC 557 GENDER IDENTITY IN TRANSITION (3) Psychological consequences of changing definitions of femininity, masculinity and personhood will be examined by using recent theories of gender identity formation.

Concepts such as androgyny, sex-role transcendence and future shock will be related to psychological adaptation to change. Prerequisite: PSYC 315 or PSYC 447, or consent of instructor.

PSYC 560 ETHOLOGY AND COMPARATIVE PSYCHOLOGY (3) A survey of the major behavioral adaptations in nonhuman and human species, within the framework of evolutionary theory, ethology and experimental psychology. Three lecture hours weekly. Prerequisite: 9 units of psychology or consent of instructor.

PSYC 565 PHYSIOLOGICAL PSYCHOLOGY (3) Course is concerned with an introduction to the physiological bases of behavior. The topics to be considered are basic neuroanatomy and neurophysiology, sensory and motor systems, motivational systems, and "higher order" behavioral systems. Three lecture hours weekly. Prerequisite: 9 units of psychology or consent of instructor.

PSYC 567 MIDLIFE DEVELOPMENT (3) A study of adult behavior between the ages of 18 and 60. The developmental stages of young adulthood, adulthood and middle age will be discussed along with topics pertinent to each of the levels such as leaving and becoming emancipated from the family; the transition and adjustment to marriage and work; and bridging the gap between ideals and actual fulfillment. Prerequisite: PSYC 203.

PSYC 570-579 SPECIAL TOPICS (1-3) Survey and critical evaluation of modern literature pertaining to selected problems in psychology. May be repeated in a different topic for a maximum of 12 units.

PSYC 580 SYSTEMS OF PSYCHOLOGY (3) Schools of psychology and their theoretical and methodological approaches. Prerequisites: Junior psychology major and consent of instructor. Alternate spring terms.

PSYC 581 READING IN PSYCHOLOGY (1-2) A survey of relevant research literature under the guidance of a staff member who will

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direct the student's research. This course may be taken a maximum of two times for major unit purposes. Prerequisites: 9 units of psychology and consent of instructor.

PSYC 591 INDEPENDENT INVESTIGATION IN PSYCHOLOGY (3) Opportunity for specially qualified students to undertake research problems according to their interest and training under the direction of a staff member. May be repeated for a maximum of 12 units but only 6 units can apply to the major; the other 6 units will be used as general electives. Prerequisites: PSYC 261 and consent of instructor. Fall and spring terms.

PSYC 594 TRAVEL AND STUDY ABROAD IN PSYCHOLOGY (1-3) Study of selected topics, issues, programs, projects and/or facilities related to the field of psychology. Locations and topics to be selected by department and instructor sponsoring the program. Prerequisite: Consent of instructor.

PSYC 603 HUMAN LEARNING (3) Aspects of learning applicable specifically to human behavior including topics such as acquisition, memory, problem solving, creativity and language. Topics discussed within a framework of historic and current theoretical research perspectives. Prerequisite: 21 units in Psychology.

PSYC 605 COUNSELING TECHNIQUES (3) Training the student in practical counseling skills through demonstration and role playing with feedback in behavioral performance.

PSYC 606 CAREER DEVELOPMENT (3) Designed to familiarize students with aspects of career development, to introduce them to a variety of relevant resources and media, and to assist them in integrating this knowledge by planning a program of career development for a specific group.

PSYC 607 APPLIED THEORIES OF COUNSELING (3) Counseling theorists whose applied methodology has been successful in the treatment of various client populations. Techniques and application of methodologies in field settings.

PSYC 609 ADVANCED COUNSELING TECHNIQUES (3) Advanced therapeutic interventions with various client populations. Prerequisites: PSYC 605 and PSYC 607.

PSYC 610 ADVANCED PSYCHOLOGY OF AGING (3) Advanced study of the changes in learning, emotions, personality and social behavior and the impact of culture and attitudes on aging. Prerequisite: 6 units of psychology including PSYC 203. Students should be aware of how to read and understand psychology journals and how psychological research is conducted. Fall term, evening, in alternate years.

PSYC 611 DEVELOPMENTAL PSYCHOLOGY (3) Psychological structures and functions in human development across the life span. Both theoretical and research approaches are presented.

PSYC 613 COMMUNITY MENTAL HEALTH COUNSELING (3) Types of community health services and the relationships between those services, the responsibility of counseling in a mental health center and the area of mental health consultant. Emphasis will be given to the application of counseling skills in a mental health setting.

PSYC 615 INTRODUCTION TO RESEARCH METHODS IN COUNSELING (3) Principal methods of behavioral research emphasizing concepts rather than statistical procedures. Preparation of counselors to evaluate methods, designs and results of counseling research.

PSYC 620 ASSESSMENT OF INTELLIGENCE (3) Construction, standardization, administration, scoring and interpretation of tests. Prerequisites: Matriculation in Clinical or School Psychology and consent of program director.

PSYC 622 ADVANCED MULTI-CULTURAL PSYCHOLOGY (3) Promotion of cultural awareness and understanding of relevant theories, terminology and techniques for communicating and working with individuals of

diverse backgrounds. Prerequisites: Advanced standing in Counseling, Clinical or School Psychology and consent of the instructor.

PSYC 625 FUNCTIONAL BEHAVIOR ASSESSMENT (3) Application of behavioral assessment and analysis techniques in school settings. Functional behavior assessment stressed. Prerequisites: 21 units in Psychology, matriculation in graduate program in Psychology and consent of program director.

PSYC 631 ADVANCED ABNORMAL PSYCHOLOGY (3) Current and historical perspectives of psychopathology. Emphasis on various diagnostic approaches. Prerequisite: PSYC 361.

PSYC 637 COUNSELING STRATEGIES FOR DRUG AND ALCOHOL ABUSE (3) Understanding the basic issues of substance abuse, referrals, clinical assessments and developing counseling strategies for successful intervention.

PSYC 647 INDIVIDUAL APPRAISAL (3) Practice in the use and analysis of techniques for understanding the individual with emphasis upon standardized procedures.

PSYC 651 INDIVIDUAL AND GROUP INTERVENTIONS (3) Group and individual intervention strategies. Prerequisite: Matriculation in School, Clinical or Counseling Psychology or consent of instructor.

PSYC 653 RESEARCH ISSUES IN SCHOOL/CLINICAL PSYCHOLOGY (3) Analysis of major issues in school and/or clinical psychology. Prerequisites: PSYC 212, graduate standing in School or Clinical Psychology and consent of program director.

PSYC 661 FOUNDATIONS OF REHABILITATION COUNSELING (3) Development of rehabilitation programs; their legal basis and historical background. Roles of medical, psychological, educational and community resources in the rehabilitation program included. Client eligibility, determination, counselor responsibilities will be reviewed.

PSYC 665 PSYCHOTHERAPY AND BEHAVIOR CHANGE I (3) First of two-term sequence. Readings, lectures and actual experience related to theories and techniques currently used for behavior change. Individual psychotherapy, family therapy, rational-emotive therapy and behavior modification reviewed. May be taken without Psychotherapy and Behavior Change II. Prerequisites: Graduate standing in School or Clinical Psychology tracks and consent of program director.

PSYC 666 PSYCHOTHERAPY AND BEHAVIOR CHANGE II (3) Second of two-term sequence. Continued analysis of psychotherapy approaches through readings, lectures and experience. Prerequisites: PSYC 665 and consent of program director.

PSYC 667 PSYCHOSOCIAL ASPECTS OF DISABILITY (3) Psychosocial challenges facing the disabled person's self-concept. Approaches to facilitating independence and self-actualization.

PSYC 668 MEDICAL ASPECTS OF DISABILITY (3) Structure and function of bodily systems and implications of physical disabilities in coping with the problems of daily living.

PSYC 672 PROSEMINAR (3) Development of research proposals, including the literature review, proposed method and data analysis. Emphasis on use of appropriate format and style, both written and oral presentation of material. Prerequisites: PSYC 212 and PSYC 314.

PSYC 673 ADVANCED RESEARCH METHODS IN PSYCHOLOGY (4) Survey of research methods used in psychology, completion of an empirical study. Prerequisites: PSYC 212, PSYC 314, and PSYC 672.

PSYC 674 ADVANCED BIOLOGICAL PSYCHOLOGY (4) Major concepts, processes and methods in the field of biological psychology. Prerequisites: PSYC 212, PSYC 314 and PSYC 672.

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PSYC 679 SPECIAL TOPICS SEMINAR (1-3) Topics vary according to the instructor.

PSYC 680 ADVANCED COGNITIVE PSYCHOLOGY (4) Study of human cognition, the cognitive perspective and major methods of cognitive psychology. Topics will include perception, attention, memory, language, thinking and cognitive neuroscience. The course includes reading of primary source articles and laboratory investigation of cognitive phenomena. Permit from program director required. Prerequisites: PSYC 212 and PSYC 314.

PSYC 682 ADVANCED SOCIAL PSYCHOLOGY (3) Study of major theories, methods and studies in social psychology. Course involves reading and discussion of primary research articles. Topics include social cognition, attitudes and social influence. Permit from program director required. Prerequisites: PSYC 212 and PSYC 314.

PSYC 685 COLLEGE TEACHING PRACTICUM (3) Supervised teaching of introductory psychology.

PSYC 687 ADVANCED EXPERIMENTAL DESIGN I (3) Treatment of descriptive and inferential statistical methods and design considerations. Prerequisite: PSYC 212 or equivalent.

PSYC 688 ADVANCED EXPERIMENTAL DESIGN II (3) Treatment of advanced analysis of variance designs and related techniques. Prerequisite: PSYC 687 or equivalent.

PSYC 689 MULTIVARIATE METHODS (3) Multivariate statistical methods useful in behavioral scientific research. Topics: correlation, regression, factor analysis, discriminant analysis. Prerequisite: PSYC 687.

PSYC 691 INDEPENDENT INVESTIGATION IN PSYCHOLOGY (1-3) An opportunity for graduate students to undertake research problems according to their interest and training under the direction of a faculty member. Prerequisites: PSYC 212 and PSYC 314.

PSYC 695 INDEPENDENT STUDY (3) Individual and supervised study in selected areas of psychology. Prerequisite: Consent of instructor.

PSYC 697 PRACTICUM IN CLINICAL PSYCHOLOGY (1-6) Supervised experience in psychological interviewing, assessment and psychotherapy. Practicum in which students will meet for individualized supervision with the practicum instructor. Prerequisites: PSYC 620, M.A. candidacy in Clinical Psychology and consent of program director.

PSYC 703 PRESCHOOL ASSESSMENT (3) Understanding the development of young children through formal and informal assessment. Prerequisites: PSYC 620, matriculation in School Psychology Track or consent of program director.

PSYC 713 ROLE OF THE SCHOOL PSYCHOLOGIST (3) History and foundations of school psychology, ethics and standards of practice, professional trends, organization and operation of schools. Prerequisites: Matriculation in School Psychology Track and consent of program director.

PSYC 715 ADVANCED SEMINAR IN PSYCHOTHERAPY (3) Counseling and therapy techniques used by counselors and other professional personnel working with children and adults. Prerequisite: PSYC 609.

PSYC 717 THEORIES OF FAMILY COUNSELING (3) Theoretical approaches and strategic methods of evaluating and counseling disturbed families.

PSYC 718 TECHNIQUES OF FAMILY COUNSELING (3) Identification of problems that cause families to deteriorate, diagnosis of those problems and techniques that will help families work through their difficulties. Emphasis on development of skills essential to effective family counseling practice. Prerequisites: Must have passed the departmental advancement candidacy examination or be enrolled in the C.A.S. program, and consent of the course instructor.

PSYC 721 GROUP COUNSELING (3) Theories, principles and techniques of group counseling. Prerequisites: Must have passed the departmental advancement to candidacy examination and have consent of instructor.

PSYC 722 ADVANCED MULTICULTURAL COUNSELING (3) Self-awareness, theoretical, assessment and treatment issues in the areas of multicultural counseling. Prerequisites: Advanced standing in Counseling or Clinical Psychology including successful completion of the advancement to candidacy exam, and consent of the instructor; or enrollment in the C.A.S. program and consent of instructor.

PSYC 730 ADVANCED CHILD AND ADOLESCENT COUNSELING IN SCHOOL AND COMMUNITY SETTINGS (3) Treatment of specific presenting problems seen in childhood and adolescence. Application of technique in students field placements. Prerequisite: Instructor approval.

PSYC 731 SCHOOL-BASED CONSULTATION (3) Theoretical and applied aspects of school consultation within framework of curricular, administrative and overall school environment. Prerequisite: Matriculation in School Psychology Track or consent of instructor.

PSYC 733 EXCEPTIONAL CHILD: ADVANCED ISSUES (3) Identification of and planning for student with exceptionalities in the schools. Focus on IDEA diagnostic categories and relevant new techniques. Prerequisite: Matriculation in School Psychology Track or consent of program director.

PSYC 745 PRACTICUM IN COUNSELING PSYCHOLOGY (1-3) Supervised experience in educational, vocational and personal counseling. Must be taken in two separate terms (3 units per term). Prerequisites: PSYC 609, PSYC 790, must have passed the departmental advancement to candidacy examination and have consent of counseling program director.

PSYC 755 COGNITIVE THERAPY I (3) Theory and techniques of cognitive and rational-emotive therapy, including assessment strategies and basic applications. Prerequisites: PSYC 631, PSYC 655, PSYC 665, matriculation in Clinical Psychology program and consent of program director.

PSYC 756 COGNITIVE THERAPY II (3) Advanced applications of cognitive and rational-emotive therapy to specific clinical problems and differing client populations, ranging from children to adults. Prerequisites: PSYC 631, PSYC 655, PSYC 665, matriculation in Clinical Psychology program and consent of program director.

PSYC 761 SOCIAL-EMOTIONAL ASSESSMENT OF CHILDREN AND ADOLESCENTS (3) Administration and interpretation of current assessment techniques. Focus on use in school settings. Prerequisites: Matriculation in School Psychology Track or Clinical Psychology program and consent of program director.

PSYC 765 PERSONALITY ASSESSMENT IN CLINICAL PSYCHOLOGY (3) Theoretical and empirical bases underlying personality assessment. Introduction to methods and instruments used in clinical evaluation. Prerequisites: Matriculation in Clinical Psychology program and consent of program director.

PSYC 766 ADVANCED PERSONALITY ASSESSMENT IN CLINICAL PSYCHOLOGY (3) Expand skill-building process in administration, analysis and report of personality assessment data with clinical populations. Prerequisites: PSYC 765 and consent of program director.

PSYC 771 SCHOOL PSYCHOLOGY PRACTICUM I (3) Fieldwork in a public school setting under the supervision of a certified or licensed school psychologist. Concurrent weekly class meetings. Prerequisites: PSYC 620, PSYC 651, PSYC 761 and PSYC 790, matriculation in School Psychology program and consent of program director.

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PSYC 773 SCHOOL PSYCHOLOGY PRACTICUM II (3) Fieldwork in a public school setting under the supervision of a certified or licensed school psychologist. Concurrent weekly class meetings. Prerequisites: PSYC 605, PSYC 731 and PSYC 771, matriculation in School Psychology program and consent of program director.

PSYC 790 ETHICAL, LEGAL AND PROFESSIONAL ISSUES IN PSYCHOLOGY (3) Treatment of ethical, legal and professional issues related to the practice of school, clinical and counseling psychology. Prerequisite: Consent of instructor.

PSYC 793 INTERNSHIP IN COUNSELING PSYCHOLOGY (3-9) Intensive experience within a counseling facility involving exposure to the many facets of a mental health professional, including administrative and record-keeping duties; individual and group counseling observations and experiences; referral resources, etc. Prerequisites: PSYC 745 and consent of instructor.

PSYC 794 INTERNSHIP IN SCHOOL PSYCHOLOGY (1-3) Full-time internship placement in a school setting. Prerequisites: C.A.S. candidate in School Psychology Track and consent of program director.

PSYC 797 INTERNSHIP IN CLINICAL PSYCHOLOGY (3) Supervised field experience in a community mental health center, state psychiatric hospital, or other public mental health facility with exposure to the duties of a master's level clinical psychologist including psychological assessment, psychotherapy report writing. Prerequisites: PSYC 697 and consent of Clinical Psychology program director.

PSYC 897 THESIS (6)

PSYC 898 THESIS (3) The previous course, PSYC 897, taken over two consecutive terms.

PSYC 899 THESIS CONTINUUM (1)

PUBLIC ADMINISTRATION (PUAD)

Courses in PUAD are offered at the UB campus as part of the joint MBA program.

PUAD 750 HEALTH CARE SYSTEMS, ORGANIZATION AND MANAGEMENT (3) An analysis of the structure of the present American health care system and of the costs, benefits and political realities of possible reforms. The current and future role of public administration, planning and evaluation in American health care.

PUAD 751 POLICY ISSUES IN HEALTH CARE (3) A study of a few current policy issues in the American health care system. Particular attention to the roles and powers of non-medical participants, including consumers, planners, administrators and policymakers.

PUAD 752 SPECIAL TOPICS IN PUBLIC HEALTH ADMINISTRATION (3) Current policy issues in health care administration, delivery, planning and evaluation. Particular attention is paid to the evolving roles and powers of nonmedical participants in the health care system, including consumers, planners, administrators and federal, state and local decision-makers.

PUAD 755 HEALTH ADMINISTRATION (3) Problems and issues with performing such basic managerial functions as direction, control and staffing in health care institutions. Emphasis on analyzing tools and techniques that are important in fulfilling these managerial functions.

PUAD 756 MANAGED CARE ADMINISTRATION (3) Basic theoretical concepts concerning managed care, practical management issues and areas of controversy as they pertain to managed care. Topics include benefit design in managed care, structure and management of managed-care delivery systems, financing of managed care and future trends in managed care.

PUAD 757 STRATEGIC MANAGEMENT FOR HEALTH CARE (3) An examination of strategic management in health care organizations. Included are discussions of the nature of strategic management, the environment of health organizations and methods of environmental analysis; and methods of formulating, implementing and controlling the strategic management of health care delivery.

PUBLICATIONS DESIGN (PBDS)

Course in PBDS is offered at the UB campus as part of the joint MBA program.

PBDS 720 THE DIGITAL ECONOMY (3) The impact of the digital revolution in a number of areas—how we make a living, how we govern ourselves, and how we create values for ourselves. The course has two goals: to provide students with an understanding of the way the digital economy creates a unique business culture and establishes (and reflects) a network of new economic values, and to prepare students to effectively invest their time, talent and imagination in the new culture and economy of digital technology.

READING EDUCATION (REED)

REED 601 READING THEORY AND PRACTICE (3) Theoretical foundations of reading instruction; methods and materials used in integrated literacy learning.

REED 602 TEACHING READING: THEORY AND PRACTICE (3) Opportunity to develop an understanding of the reading process, consider competing theories of reading, learn about reading assessment and explore a range of instructional strategies and materials for integrating literacy into K-12 classrooms. This course has some overlap with REED 601.

REED 609 READING ASSESSMENT (3) Reading assessment using both standardized tests and informal procedures; interpretation of assessment data.

REED 621 READING DISABILITIES (3) Etiology of reading disabilities, observation and interview procedures, standard and informal tests, report writing and instructional intervention.

REED 623 EVALUATION OF READING RESEARCH (3) Research and experimentation methodology.

REED 626 CLINIC INTERNSHIP IN READING (3) Supervised clinical experience with clients with reading difficulties.

REED 628 GUIDED READING (3) Examines how to scaffold reading instruction using the process of guided reading. Includes analyzing multiple perspectives on guided reading and applying the approach to instruction with small groups of children in a clinical setting.

REED 632 WORD STUDY FOR LITERACY LEARNING (3) Examines the characteristics of adolescents and adults with language-learning disabilities, how to identify their needs for literacy improvement and how to design and implement an individualized program for literary development.

REED/EDUC 650 SECOND LANGUAGE LITERACY (3) Second language literacy acquisition and learning, instructional practices used for differentiation and inclusion, relationships between language arts teacher/reading specialists and ESL specialists, models of literacy instruction found in English as Second Language, Bilingual, Dual Immersion and content area-focused settings.

REED/EDUC 651 INSTRUCTION AND ASSESSMENT FOR SECOND LANGUAGE LEARNERS (3) Students will be invited to critically examine approaches to second language development and assessment for children congruent with recent research in second language acquisition in children.

REED 660 INTEGRATING TECHNOLOGY IN LITERACY INSTRUCTION (3) A course designed to help teachers develop tech-

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nology-based reading instruction. Emphasis on designing reading segments on phonemic awareness, vocabulary development, comprehension and writing, and using presentation, graphics and multimedia authoring software.

REED 663 STRATEGIC USE OF MATERIALS (3) Theories underlying literature-based instruction examined; recent research evaluated; instructional techniques introduced, modeled and applied; materials for instruction cooperatively developed; and criteria for literature selection established.

REED 665 TEACHING READING AND WRITING IN THE CONTENT AREAS K-12 (3) Examination of interrelationship of reading and writing, and their roles in instruction of content areas, K-12.

REED 670 SPECIAL TOPICS IN READING EDUCATION (3-6) In-depth study of a selected topic in reading education. Specific requirements and prerequisites will vary and will be designated by the department each time a topic is scheduled. Approval by the Reading program director is required.

REED 695 INDIVIDUALIZED STUDY IN READING EDUCATION (3-6) Individually planned program of study, which will permit the student to engage in research and/or field studies in reading education. Approval by the Reading program director is required.

REED 710 MULTICULTURAL LITERATURE FOR CHILDREN AND ADOLESCENTS (3) An in-depth critical examination of multicultural literature for young children and adolescents. Strategies for selecting and evaluating texts and resources will be explored considering issues of voice, worldview, culture, rituals, language and lifestyles.

REED 712 CRITICAL CONVERSATION: EARLY LITERACY RESEARCH, POLICY AND PRACTICE (3) Critically examines current policies, research and instructional trend in early literacy instruction. Engage in personal and collaborative inquiry into important

issues affecting all elementary teachers and reading professionals. Examine current professional literature, early literacy research and key public policy documents representing a range of contracting perspectives in the field. Prerequisite: Admission to a graduate program in education.

REED 726 ADVANCED CLINIC INTERNSHIP IN READING (3) Advanced clinical experience with clients, families and paraprofessionals. Prerequisite: REED 626.

REED 729 SEMINAR IN READING (3) Review of theories and research in the field of reading. Prerequisite: 21 units in reading education or consent of instructor.

REED 740 GRANT WRITING IN EDUCATION (3) Essentials of proposal development and funding acquisition. Exploration of specific steps involved in the grant writing process via lecture, class discussion, small group work and individual instructor consults. By the conclusion of the course, student will have successfully created an actual grant application that is ready for submission to potential funding source.

REED 745 PROFESSIONAL DEVELOPMENT IN READING (3) Design, implement and evaluate experiences for the professional development of educators in the area of literacy. Explore research from various fields that influence the effectiveness of professional development in the area of literacy. Prerequisites: Completed master's in Education.

REED 751 LANGUAGE, LITERACY AND CULTURE (3) Historical perspectives and current topics in the fields of linguistics, semiotics and cultural studies will inform the discussion of literacy learning in a variety of contexts.

REED 752 LITERACY THEORY AND RESEARCH (3) Expand insights into past and current research and theory in the literacy field. Critically analyze research findings and develop a research proposal.

RELIGIOUS STUDIES (RLST)

RLST 570 ADVANCED TOPICS IN RELIGIOUS STUDIES (3) Examination of diverse topics in the study of religion. Maybe a repeated for a maximum of 6 credits provided a different topic is covered. Prerequisites: None

SCIENCE EDUCATION (SCIE)

SCIE 551 TEACHING SCIENCE IN EARLY CHILDHOOD (2) Course is designed to familiarize the student with appropriate methods and materials in science for the young child. Emphasis will be on interdisciplinary approach. Prerequisite: ECED 341 or concurrently.

SCIE 570-575 SEQUENTIAL SCIENCE MODULES FOR THE ELEMENTARY SCHOOL TEACHER I-VI (1-3) Three different modules of science instruction will be offered each term for teachers of primary and intermediate grades. The course will emphasize instructional strategies in both the process and content of the science. A student may elect to take one, two or all three modules for 1, 2 or 3 units respectively. All students must attend the first class meeting for course orientation. Thereafter, each module will meet once a week for four weeks. Each meeting will consist of approximately four hours laboratory work. Prerequisite: Teaching experience in the elementary schools.

SCIE 576 TEACHING SCIENCE IN THE ELEMENTARY SCHOOL (3) Application, analysis and integration of science teaching skills in the elementary classroom. Field experience in local schools. Taken concurrently with BIOL 303 and PHSC 303.

SCIE 580 TEACHING SCIENCE IN THE SECONDARY SCHOOLS (3) Selection of appropriate content, method and evaluation techniques, analysis of textbooks and resource materials for teaching science in the middle and high schools. Must be taken the term

prior to student teaching. Prerequisite: SCED 341 or ELED 363.

SCIE 670-679 SPECIAL TOPICS IN SCIENCE EDUCATION (1-4) Selected topic in science education. Prerequisite: Varies with topic.

SCIE 685 SEMINAR IN ELEMENTARY SCHOOL SCIENCE (3) Practices and trends in organizing, teaching and improving programs in elementary school science. Prerequisite: Elementary teaching.

SECONDARY EDUCATION (SCED)

SCED 518 YOUNG ADULT LITERATURE (3) Literature as expression of basic needs and ideas of youth through independent reading; criteria and aids for evaluation and selection of books and other media. Not open to those who have completed EDUC 418/518.

SCED 558 WRITING AS A LEARNING TOOL IN THE SECONDARY SCHOOL (3) Strategies for using writing to learn content in all disciplines; examination of the writing process: diagnosis, prewriting, drafting, revision, evaluation and publication. Prerequisites: SCED 341 and SCED 319, or consent of instructor.

SCED 560 USING READING AND WRITING IN THE SECONDARY SCHOOL (4) Developmental reading and writing, assessment, vocabulary building, comprehension, special needs adaptations and clinical practice. Prerequisites: SCED 341 or concurrently; written permission from the Department of Secondary Education chair. (Written permission not required for part-time evening students.)

SCED 561 TEACHING READING IN THE SECONDARY CONTENT AREAS (3) Application and assessment of reading strategies and instructional frameworks in secondary content classroom. Prerequisites: SCED 560 and currently teacher or student.

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SCED 563 DEVELOPMENTAL READING FOR THE EARLY ADOLESCENT (3) Methods of designing and teaching developmental reading programs for the middle or junior high school student. Attention to the following: providing for individual differences, teaching students to read critically, developing and extending reading interests. Prerequisite: SCED 460 or equivalent reading methods course.

SCED 570-579 SPECIAL TOPICS IN SECONDARY EDUCATION: (Topic to be named) (1-3) In-depth study of a selected topic in secondary or adult education. Specific requirements and prerequisites will vary with each topic and will be designated by the department each time a topic is scheduled. Graduate credit only with approval of the graduate program director. Each topic may be taken as a separate course.

SCED 594 TRAVEL AND STUDY IN SECONDARY EDUCATION (1-6) Study abroad of educational facilities, programs or practices, or selected projects in education topics. By special arrangement with program chair and sponsoring instructor. Consent of graduate program director required for graduate credit.

SCED 595 INDEPENDENT STUDY IN EDUCATION: SECONDARY (1-4) An opportunity for specially qualified students to undertake research problems or study projects relevant to their interest and training under the direction of a staff member. Prerequisite: Consent of graduate program director.

SCED 596 DIRECTED READING IN SECONDARY EDUCATION (1-4) Independent reading in selected areas of secondary education in order to provide a comprehensive coverage for the individual or to meet special needs. By invitation of the department to qualified students. Prerequisite: Consent of graduate program director.

SCED 603 TEACHING WRITING ACROSS THE CURRICULUM (3) The process of writing, given for specific school systems, by the Maryland Writing Project. Small group and

assessment techniques included. Prerequisites: Bachelor's degree and teaching experience. Graduate credit only with approval of the graduate program director.

SCED 605 THEORY, RESEARCH AND PRACTICE IN TEACHING COMPOSITION (6) The teaching of writing skills, K-university and across disciplines; training of participants to become Maryland Writing Project teacher consultants. Prerequisites: Bachelor's degree, teaching experience and consent of Maryland Writing Project director.

SCED 621 INDIVIDUALIZING LEARNING IN THE SECONDARY SCHOOL (3) Philosophical and psychological bases; goal development; organizational patterns; assessment; teaching strategies in content areas; grading and evaluation; programming for classroom, departmental and school levels. Prerequisite: Teaching experience.

SCED 623 THE MIDDLE SCHOOL (3) Functions and characteristics, historical development, philosophical and psychological bases, nature of youth, and curriculum and organizational patterns.

SCED 625 TEACHING IN THE MIDDLE SCHOOL (3) Goals and objectives, planning, instructional procedures and materials, evaluation techniques, and special problems of instructing preadolescents. Prerequisite: Teaching experience.

SCED 627 TRAINING STRATEGIES IN THE WORKPLACE (3) Teaching/learning dimensions of adults in nontraditional settings business, industry, government and the non-profit sector. Prerequisite: Business or personnel experience, or consent of instructor.

SCED 631 THE COMMUNITY COLLEGE (3) Historical development, purposes and goals, curriculum evaluation, finance, accreditation and trends, state and national patterns and current student needs. Prerequisite: Consent of instructor.

SCED 633 CURRICULUM AND INSTRUCTION IN THE COMMUNITY COLLEGE (3) Educational programs, curricula, instructional techniques, evaluative procedures, community involvement and societal expectations, concerns and trends affecting programs, and objectives as related to institutional goals. Prerequisite: SCED 631 or equivalent.

SCED 635 DISCIPLINE AND CLASSROOM MANAGEMENT IN SECONDARY SCHOOLS (3) Theories of pupil behavior and effective discipline, procedures and routines for efficient classroom management, discipline problems in urban and suburban schools, and solutions to discipline problems. Prerequisite: Teaching experience or completion of student teaching.

SCED 641 SECONDARY TEACHING METHODS (3) Philosophy and purposes of constructivist secondary education; principles of teaching and learning; basic techniques of lesson planning and instruction. Course restricted to conditionally certified teachers through the Towson Learning Network.

SCED 647 ADVANCED PROCESSES OF TEACHING AND LEARNING (3) Systems for analyzing teaching behavior, models of instruction for achieving cognitive, social and personal learning objectives, and analysis of classroom application of teaching models.

SCED 649 TEACHING GIFTED STUDENTS IN THE SECONDARY SCHOOL (3) Characteristics of gifted adolescents, role of the gifted in society, educational programs, identification procedures, administrative arrangements, curriculum and methodology.

SCED 651 TECHNIQUES FOR TEACHING SPECIAL-NEEDS ADOLESCENTS AND ADULTS (3) Assessment, diagnostic and remedial strategies, and motivational devices for adolescents and adults of below-average mental ability as defined under IDEA. Prerequisite: Teaching experience, student teaching or consent of instructor.

SCED 670-674 SPECIAL TOPICS IN SECONDARY EDUCATION (1-3) In-depth study of a selected topic. Specific requirements and prerequisites vary as designated by the department. Prerequisite: Consent of graduate program director.

SCED 683 STAFF DEVELOPMENT AND SUPERVISORY PRACTICES IN SECONDARY SCHOOLS (3) Roles of the supervisor, theories and practices. Prerequisite: Current teaching experience.

SCED 695 INDEPENDENT STUDY IN EDUCATION: SECONDARY (1-4) Independent study in selected areas of secondary education. Prerequisite: Consent of instructor.

SCED 696 DIRECTED READING IN SECONDARY EDUCATION (1-4) Independent reading in selected areas of secondary education. Prerequisite: Consent of instructor.

SCED 731 FIELD EXPERIENCES IN ADOLESCENT OR ADULT LEARNING DISABILITIES (3) Observation and analysis of adolescents or adults with learning disabilities, assessment strategies, design of remedial activities, evaluation of observed teaching/learning strategies, and preparing written reports of observations. Prerequisites: One course in special education or learning disabilities, and approval of instructor.

SCED 741 CURRICULUM DEVELOPMENT IN THE SECONDARY SCHOOL (3) Principles and practices, significant historical and contemporary influences, objectives, content and evaluation, trends, and teachers as curriculum developers and implementers. Prerequisite: Consent of instructor.

SCED 751 SEMINAR IN MIDDLE SCHOOL CURRICULUM (3) Curriculum designs and programs, organization for instruction, teacher preparation programs, guidance and nature of middle school students, community involvement and evaluation. Prerequisite: Middle school teaching experience or consent of instructor.

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SCED 753 SEMINAR IN SECONDARY SCHOOL CURRICULUM (3) Theories, research and evaluation; analysis of present programs; rationale for program development and change. Prerequisite: Graduate course in curriculum.

SCED 770-774 SPECIAL TOPICS IN SECONDARY EDUCATION (1-3) In-depth study of a selected topic. Specific requirements and prerequisites vary as designated by the department. Prerequisite: Consent of graduate instructor.

SCED 779 SEMINAR IN SECONDARY SCHOOL SOCIAL STUDIES (3) Current research, trends, practices, issues, content, materials and problems. Prerequisite: Teaching experience in social studies.

SCED 781 INTEGRATED PROFESSIONAL PRACTICE SEMINAR (3) Trends, issues, problems in education. Integrative investigations through quantitative/qualitative research, curriculum and instruction development or policy and program development for selected aspects of secondary education. Prerequisites: 27 units of graduate work, EDUC 761 and permission of adviser.

SCED 897 MASTER'S THESIS IN SECONDARY EDUCATION (6)

SCED 898 THESIS (3) The previous course, SCED 897, taken over two consecutive terms.

SCED 899 THESIS CONTINUUM (1)

SOCIAL SCIENCE (SOSC)

SOSC 600 INTERDISCIPLINARY APPROACHES TO GLOBAL PROBLEMS (3) Interdisciplinary approaches to global problems; comparative frameworks; issues include economic integration, urbanization, environment.

SOSC 601 THE GEOGRAPHER'S VIEW (3) The role of geography within the social sci-

ences through an exploration of recent trends in the discipline.

SOSC 602 COMPARATIVE HISTORY AND HISTORIOGRAPHY (3) Examination of selected topics in comparative history, including consideration of the developed and less developed world. Exploration of competing approaches and leading historiographical issues.

SOSC 603 THE ECONOMIST'S PERSPECTIVE (3) Use of economic concepts and tools (such as cost and benefit, supply and demand) to facilitate logical thinking about complex social issues and, therefore, to promote understanding of society and of other social sciences.

SOSC 604 EAST ASIAN SECURITY ISSUES, 1945-PRESENT (3) Examines the post-war search for security and stability in East Asia through economic development diplomacy and military action by the major powers, such as the United States, Japan, the People's Republic of China and the Soviet Union. The efforts of smaller states, such as North Korea, South Korea and Taiwan also merit attention. Focus on the historical continuities in security concerns from the pre-to-post cold war eras.

SOSC 605 AMERICAN POLITICS IN THE 21ST CENTURY (3) The course will constitute the political science department's core offering to the M.S. in Social Science. It will address the change and continuity in American politics and American political science in the last 50 years.

SOSC 606 SOCIOLOGICAL INSIGHT (3) Theories, methods and substantive issues in sociology. Consideration of recent advances in sociological research.

SOSC 609 DEVELOPMENTAL HUMAN LEARNING: A LIFESPAN APPROACH (3) Provides graduate students with basic theories, historical development and application of scientific methods to human learning.

SOSC 611 SOCIOLOGICAL INSIGHT (3) Theories, methods and substantive issues in sociology. Consideration of recent advances in sociological research.

SOSC 625-630 TOPICS IN THE SOCIAL SCIENCES (3) Content will be selected from different areas of the social sciences to complement course offerings and the needs of students and the program. May be repeated for a maximum of 9 units.

SOSC 787 DIRECTED INDIVIDUAL READINGS IN SOCIAL SCIENCES (1-6) Individual readings on a social science topic. May be repeated for a maximum of 6 units contingent upon certain restrictions if thesis or non-thesis track. Check with department. Prerequisites: Graduate standing and 28 units of SOSC core courses.

SOSC 797 DIRECTED INDIVIDUAL RESEARCH IN SOCIAL SCIENCE (3) Research and reading with a social science topic to be selected by the instructor and the student. No more than 6 units may be applied toward a degree. Prerequisites: Graduate standing and 18 units of SOSC core courses.

SOSC 897 MASTER'S THESIS (6) Thesis research in social science. Prerequisite: Permit from graduate program director.

SOSC 898 MASTER'S THESIS (3) Thesis research in social science. Will take this course two consecutive terms. Prerequisite: Permit from graduate program director.

SOSC 899 MASTER'S THESIS CONTINUUM (1) Continuation of thesis work. Prerequisite: 6 units of Thesis 898 or 897.

SOCIOLOGY (SOCI)

SOCI 511 INDIVIDUAL AND SOCIETY (3) A social psychological approach to the interrelationships of the individual and his/her social and cultural environment; behavioral

characteristics resulting from social experience. Prerequisite: SOCI 101.

SOCI 523 SOCIAL CHANGE (3) A sociological analysis of the sources, processes and consequences of social change. Prerequisite: SOCI 101.

SOCI 525 CROWDS, MOBS AND RIOTS (3) Study of unorganized and organized groups and their impact on society; crowds, mobs, riots and other processes of disruptive and constructive change. Prerequisite: SOCI 101.

SOCI 527 URBAN SOCIOLOGY (3) Survey of the theoretical and sociological conceptualizations of modern Western industrial cities. Prerequisite: SOCI 101.

SOCI 529 DEMOGRAPHY (3) Social, economic and political problems related to changes, distribution and movement of population; analysis of contemporary population trends in the United States and the world. Prerequisite: SOCI 101.

SOCI 531 DEVIANCE AND ORGANIZATIONS (3) Major social patterns associated with contemporary large-scale organizations, with special emphasis on organizational deviance by and within corporations, governments and crime syndicates. Prerequisite: SOCI 101.

SOCI 533 POLITICAL SOCIOLOGY (3) Contemporary relevance of the fundamental ideas regarding the relationship of the social and political systems; the significance of social and political democratization; class struggles and revolution; the influence of government bureaucracy. Prerequisite: SOCI 101.

SOCI 535 MEDICAL SOCIOLOGY (3) A study of social and cultural perspectives on illness, demographic trends, the health professions, institutions for the delivery of health care services. Prerequisite: SOCI 101.

SOCI 540 SOCIOLOGY OF IMMIGRATION (3) The examination of sociological theories and research regarding immigration;

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emphasis on the contemporary context in the United States and globally. Prerequisites: SOCI 101, and one 300 level SOCI course

SOCI 541 CLASS, STATUS AND POWER (3) Examination of major theories and significant research on socially structured inequality in modern and traditional societies. Prerequisite: SOCI 101.

SOCI 543 SOCIOLOGY OF RACE AND ETHNICITY (3) Race and ethnicity as social constructions; individual and collective racial and ethnic identities; racial and ethnic inequality; and resistance to oppression. Prerequisite: SOCI 101.

SOCI 551 DEVIANT BEHAVIOR (3) Deviance as a process in society. Understanding conformity and deviance; identification and labeling of deviants; and society's response to deviant behavior. Prerequisite: SOCI 101.

SOCI 553 THEORIES OF CRIME (3) Evolution of criminological theory; crime rates and trends; social profile of criminal offenders and victims; societal responses. Prerequisite: SOCI 101.

SOCI 555 DELINQUENCY AND JUVENILE JUSTICE (3) Nature, distribution and causes of youth crime, youth gangs, the juvenile justice system. Prerequisite: SOCI 101.

SOCI 557 SOCIAL WELFARE (3) Sociological analysis of social welfare institutions and the functions they perform within modern societies. Prerequisite: SOCI 101.

SOCI 559 SOCIAL GERONTOLOGY (3) Examination of social factors in aging in later life and responses to aging; evaluation of research in social gerontology. Prerequisite: SOCI 101.

SOCI 560-569 TOPICS IN SOCIOLOGY (3) Current topics in sociology designed for nonmajors as well as majors. May be repeated for credit provided a different topic is covered. The content of the course will depend upon

mutual faculty and student interest. Prerequisites: SOCI 101 and 6 additional units of sociology.

SOCI 570-579 SPECIAL TOPICS IN SOCIOLOGY (3) Current topics in sociology at the most specialized level. May be repeated for credit provided a different topic is covered. Prerequisites: SOCI 101 and 6 additional units of sociology.

SOCI 581 SOCIOLOGICAL THEORY (3) Major systems of sociological theory; the works, assumptions and implications of major European and American schools. Prerequisites: SOCI 101 and 9 additional units of sociology.

SOCI 582 RESEARCH METHODS (3) A consideration of methodology of sociological research; the various steps in conducting research projects, from statement of the problem to final analysis of data. Prerequisites: SOCI 101, 9 additional units of SOCI and either PSYC 212 or MATH 231.

SOCI 585 SEMINAR IN SOCIOLOGY (3) Capstone application of ideas, methods, and facts learned in previous sociology courses. Prerequisites: SOCI 101, 9 additional units of SOCI and permission of the instructor.

SOCI 591-592 INTERNSHIP IN SOCIOLOGY I AND II (3, 3) Supervised experience in work setting which facilitates understanding of roles and relationships relevant to sociological inquiry and application of sociological knowledge. Students may elect to take one term for 3 units (591) or two terms for 3 units each (591-592), in one agency both terms or in a different agency each term. No more than 3 units may be earned in a term except with consent of the chair, which will be granted only when agency requirements and student needs make it appropriate. Prerequisite: Consent of internship coordinator.

SOCI 595 INDEPENDENT RESEARCH (3) Supervised research and sociological investigation involving library and/or field experiences,

and culminating in a written report. Prerequisites: SOCI 581, SOCI 582 and consent of instructor.

SPANISH (SPAN)

SPAN 502 SPANISH LINGUISTICS (3) Linguistic structure of the Spanish language with an introduction to transformational grammar. Conducted in Spanish. Prerequisites: SPAN 301 and SPAN 302, or equivalent.

SPAN 511 19TH-CENTURY SPANISH NOVEL I (3) Emphasis will be given to Benito Perez Galdos and Pio Baroja. Conducted in Spanish. Prerequisite: SPAN 321 or SPAN 322 (not open to students who have completed SPAN 471).

SPAN 512 CONTEMPORARY SPANISH NOVEL (3) Emphasis on such writers as Cela, Sender, Delibes and Goytisolo. Conducted in Spanish. Prerequisites: SPAN 321 and SPAN 322, or equivalent (not open to students who have completed SPAN 472).

SPAN 517 THE GOLDEN AGE IN SPANISH LITERATURE I (3) Principal attention to Cervantes, Tirso de Molina, Lope de Vega and Ruiz de Alarcon; Gongora and his role. Conducted in Spanish. Prerequisites: SPAN 321 and SPAN 322, or equivalent.

SPAN 531 19TH-CENTURY SPANISH LITERATURE (3) The main literary movements of the century: neoclassicism, romanticism, realism, naturalism and special emphasis on "costumbrismo." Conducted in Spanish. Prerequisites: SPAN 321 and SPAN 322, or equivalent.

SPAN 536 19TH-CENTURY SPANISH AMERICAN LITERATURE II (3) Principal works of the major writers from 1860 to 1900. Conducted in Spanish. Prerequisites: SPAN 321 and SPAN 322, or equivalent.

SPAN 544 20TH-CENTURY SPANISH AMERICAN LITERATURE II (3) The Contemporary Period. Conducted in Spanish. Prerequisites: SPAN 321 and SPAN 322, or equivalent.

SPAN 570-579 SPECIAL TOPICS IN SPANISH (3) Discussion of a central topic with changing emphasis from year to year. Prerequisites: SPAN 321 and SPAN 322, or equivalent.

SPAN 591-592 DIRECTED READINGS IN SPANISH (1-3) Reserved for superior students under the guidance of a departmental adviser. Conducted in Spanish. Prerequisite: Graduate standing.

SPAN 670-679 SPECIAL TOPICS IN SPANISH LANGUAGE: LITERATURE AND CIVILIZATION (3) Discussion of a central topic with changing emphasis from year to year. Prerequisite: Undergraduate degree in Spanish or consent of department chair.

SPAN 685 SEMINAR IN MODERN LITERATURE (3) Discussion of a figure or topic in modern Spanish or Spanish-American literature. Prerequisite: Undergraduate degree in Spanish or consent of department chair.

SPECIAL EDUCATION (SPED)

SPED 502 CURRICULUM/METHODS OF INCLUSION (3) Designing and implementing inclusive programs. Prerequisite: SPED 301.

SPED 515 ASSESSMENT OF INFANT/PRIMARY STUDENTS WITH DISABILITIES (3) Comprehensive assessment of young children and linking evaluative information to inclusive programming. Prerequisite: SPED 425/525.

SPED 517 COLLABORATIVE PLANNING FOR INFANT/PRIMARY PROGRAMS (3) Methods and models of interdisciplinary collaborative planning for young children with disabilities. Prerequisite: SPED 301.

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SPED 525 FORMAL TESTS AND MEASUREMENTS FOR STUDENTS WITH DISABILITIES K-12 (3) Assessment techniques, philosophical rationale, current research and intervention strategies for mildly and moderately handicapped children. Prerequisites: 6 units of psychology and 9 units of special education, and consent of department.

SPED 527 CURRICULUM/METHODS OF SOCIAL, EMOTIONAL AND MOTOR DEVELOPMENT FOR STUDENTS WITH DISABILITIES K-12 (3) Curriculum theory, research and instructional techniques for students with disabilities. Prerequisite: 6 units of special education and consent of department.

SPED 531 CURRICULUM AND METHODS OF READING FOR PRIMARY STUDENTS WITH DISABILITIES (3) Reading practices, context, procedures, materials and assessment for primary students with disabilities. Prerequisite: SPED 301 and consent of department.

SPED 551 PSYCHOEDUCATIONAL ASSESSMENT OF STUDENTS WITH DISABILITIES ELEMENTARY/MIDDLE SCHOOL (3) Assessment and intervention for cognitive, educational, emotional and social behaviors of students with disabilities. Prerequisites: SPED 301 and consent of department.

SPED 553 CURRICULUM AND METHODS OF SECONDARY SPECIAL EDUCATION PREVOCATIONAL AND VOCATIONAL INSTRUCTION (3) Issues and trends including transition-related instruction, post-secondary programs and adaptability in secondary classrooms. Prerequisites: SPED 301 and consent of department.

SPED 555 ASSESSMENT OF MIDDLE AND HIGH SCHOOL STUDENTS WITH DISABILITIES (3) Diagnosis and prescriptive techniques used by secondary-level special Education professionals. Prerequisite: SPED 301 and consent of department.

SPED 601 CURRICULUM AND METHODS OF INSTRUCTION FOR SECONDARY TRANSITION (3) Practical application of legal requirements for preparing students with disabilities for transition into employment, post-secondary and adult settings, including prevocational and vocational methodologies, student-centered planning and interagency linkages. Prerequisite: SPED 301 and consent of department.

SPED 603 INFORMAL TESTS AND MEASUREMENTS FOR STUDENTS WITH DISABILITIES K-12 (3) Assessment, diagnosis, prescriptive techniques, procedures, administration, interpretation and programming. Prerequisites: SPED 301 and consent of department.

SPED 605 WORKING WITH FAMILIES OF STUDENTS WITH DISABILITIES (3) Communication skills, human relations, parent counseling and conferencing. Prerequisites: SPED 301 and consent of department.

SPED 607 CURRICULUM/METHODS OF CLASSROOM MANAGEMENT FOR STUDENTS WITH DISABILITIES (K-12) (3) Theoretical foundations and development of practical intervention. Prerequisites: SPED 301 and consent of department.

SPED 613 ASSISTIVE TECHNOLOGY FOR STUDENTS WITH DISABILITIES K-12 (3) Designing instruction for students with disabilities using assistive and instructional technology. Prerequisites: SPED 301 and ISTC 201, and consent of department.

SPED 635 LEGAL FOUNDATIONS OF SPECIAL EDUCATION (3) Overview of litigated and legislated standards for special education services for students with disabilities and implications for current practices. Prerequisite: Student teaching or teaching experience, and consent of department.

SPED 637 INCLUSION FOR THE CLASSROOM TEACHER (3) Background and legal bases, programs, methods and materials for

special-needs children, and emphasis on the regular classroom. Prerequisite: Student teaching or teaching experience, and consent of department.

SPED 640 CHARACTERISTICS OF DIVERSE LEARNERS (3) Survey of individual differences in learning and characteristics of students with special needs with implications for inclusive educators: basic principles and major findings of research. Prerequisite: Student teaching or teaching experience, and consent of department.

SPED 641 CURRICULUM/METHODS OF INSTRUCTION FOR STUDENTS WITH DISABILITIES (K-12) (3) Characteristics that affect learning, and the design of educational programs. Prerequisites: 6 units in Psychology and 6 units in Education, and consent of department.

SPED 644 DIFFERENTIATED INSTRUCTION AND MEANINGFUL APPLICATION (3) Designed for both teachers and administrators with a focus on applying current research and practices pertaining to diagnostic indicators of student performance prior to and throughout instructional units; modifications of the content, process, product, and environment; and assessment practices that accurately reflect and encourage student learning.

SPED 646 USING TECHNOLOGY TO DIFFERENTIATE INSTRUCTION (3) Practical application of best practices differentiating instruction, using computer software to increase the access and learning of students with disabilities in general education curriculum. Prerequisite: Student teaching or teaching experience, and consent of department.

SPED 648 POSITIVE BEHAVIOR SUPPORT PLANS: DESIGN AND IMPLEMENTATION (3) Methods for functional behavioral assessment, behavioral intervention plans and ongoing assessment to be applied in a case studies approach. Prerequisites: Student teaching or teaching experience, and consent of department.

SPED 652 CAREER DEVELOPMENT FOR STUDENTS WITH DISABILITIES (3) Overview of issues and promising practices for career exploration, career development and career experiences for students with disabilities resulting in application projects. Must have consent of department.

SPED 670-679 SPECIAL TOPICS IN SPECIAL EDUCATION (1-3) Studies in selected content areas tailored to student needs. Prerequisites: Vary according to area of concentration; consent of department.

SPED 741 INTERNSHIP: STUDENTS WITH DISABILITIES (6) Placement in a special education facility or special education agency according to student interest and background. S/U grading. Prerequisites: 27 units in Special Education and consent of department.

SPED 880 GRADUATE PROJECT IN SPECIAL EDUCATION INCLUSION, TECHNOLOGY OR TRANSITION (3) An independent project designed with adviser's approval to demonstrate application of leadership skills in the special education focus area. S/U grading. Must obtain advisor and consent of department.

SPEECH-LANGUAGE PATHOLOGY (SPPA)

SPPA 525 INTRODUCTION TO AURAL REHABILITATION (3) Options available for managing children and adults who are deaf or hard of hearing. Early intervention, communication strategies, amplification options and psychosocial issues. Prerequisite: SPPA 321 and/or consent of the department.

SPPA 545 PSYCHOSOCIAL ASPECTS OF DEAFNESS (3) Educational, legal, philosophical, cultural and political influences relating to the deaf/hard of hearing. Impact of pre-lingual and post-lingual deafness on an individual's social and psychological functioning. Prerequisite: SPPA 205 and/or consent of the department.

SPPA 600 LANGUAGE DEVELOPMENT AND DISORDERS FROM BIRTH THROUGH PRESCHOOL (3) Theoretical and applied aspects of normal, delayed and disordered language development in children from birth to age 5. Family-centered assessment and intervention practices. Prerequisite: Graduate standing in the Speech-Language Pathology program and/or consent of department.

SPPA 604 ACQUIRED NEUROGENIC LANGUAGE AND COGNITIVE DISORDERS I (3) Neuroanatomical models regarding language function, theories concerning brain function and localization of lesion following cerebral vascular accident. Assessment and treatment of language deficits. Prerequisite: Graduate standing and/or consent of department.

SPPA 605 ACQUIRED NEUROGENIC LANGUAGE AND COGNITIVE DISORDERS II (3) Pathophysiology and epidemiology of acquired adult neurogenic language and cognitive disorders, traumatic brain injury and dementing processes, including assessment, diagnosis, recovery, prognosis as well as treatment efficiency and outcomes. Emphasis on cognitive aspects of communication (attention, memory, sequencing, problem-solving, executive functioning), as well as social and cultural.

SPPA 606 LANGUAGE DEVELOPMENT AND DISORDERS IN SCHOOL-AGE CHILDREN (3) Theoretical and applied aspects of normal and disordered language and literacy development in school age children will be reviewed. Best practices for assessment and intervention within this age group. Prerequisite: Graduate standing in the Speech Language Pathology program and/or consent of department.

SPPA 610 PHONOLOGY AND ARTICULATION (3) Universal phonological principles and linguistic analysis. Assessment and treatment of phonological and articulation disorders. Prerequisite: Graduate standing and/or consent of department.

SPPA 614 FLUENCY DISORDERS (3) Information on the nature of fluency and the etiology and treatment of fluency disorders through the life span. Prerequisite: Graduate standing and/or consent of department.

SPPA 620 VOICE DISORDERS IN CHILDREN AND ADULTS (3) Anatomy and physiology of the vocal mechanism with discussion and identification of abnormal voice qualities. Techniques of treatment and counseling of clients with organic and functional voice disorders. Prerequisite: Graduate standing and/or consent of department.

SPPA 622 DIAGNOSTIC PROCESS IN SPEECH-LANGUAGE PATHOLOGY (3) The diagnostic process in communication disorders of children and adults will include aspects of the process from a philosophy of assessment and information gathering to tools of assessment and individualized treatment planning. Prerequisite: Graduate standing and/or consent of department.

SPPA 626 NEUROLOGICALLY-BASED SPEECH DISORDERS (3) Neuroanatomical models regarding speech motor control, theories concerning brain function and localization of neurologic deficits following trauma or degeneration, and assessment and treatment of neurologically based speech disorders. Prerequisite: Graduate standing and/or consent of department.

SPPA 628 DYSPHAGIA (3) Anatomy and physiology of normal and abnormal swallowing. Etiology, assessment and treatment of swallowing disorders. Prerequisites: Graduate standing in the Speech-Language Pathology program and completed SPPA 626, and/or consent of department.

SPPA 680 SPECIAL TOPICS IN SPEECH-LANGUAGE PATHOLOGY (1-2) This seminar course provides elective courses in specialty areas of speech-language pathology. Subtitle will vary accordingly. This course may be repeated for maximum of 2 units. Prerequisites: Graduate standing in SPPA program and/or consent of department.

SPPA 690 CLINICAL PRACTICUM ON-CAMPUS (3) Supervised clinical experience in the university clinical facility with children and adults who have communication impairments. Prerequisites: Completed communication screening, SPPA 416 (or equivalent documentation of a minimum of 25 hours observation); graduate standing and/or consent of department.

SPPA 705 PROFESSIONAL ISSUES IN SPEECH-LANGUAGE PATHOLOGY (1) Organization, administration, accreditation and evaluation of speech-language pathology programs in universities, schools and other settings. Professional roles of direct clinical service across life span and consultation. Federal and state laws related to the special education process and licensure will be presented. Prerequisite: Graduate standing in the Speech-Language Pathology program and/or consent of department.

SPPA 710 WRITTEN LANGUAGE DEVELOPMENT AND DISORDERS (3) Language theory and application for the development of written language skills in children. Assessment and intervention within the context of the curriculum. Prerequisites: Graduate standing in the Speech-Language Pathology program, SPPA 600 and/or consent of department.

SPPA 713 SEMINAR: RESEARCH DESIGN IN SPPA (3) Scientific method as applied to research; evaluation of research designs; development and implementation of a research project; and organization, analysis and presentation of data. Prerequisite: Graduate standing and/or consent of department.

SPPA 714 AUGMENTATIVE AND ALTERNATIVE COMMUNICATION (2) Compensatory or augmentative use of various nonspeech communication modes with persons whose impairments prevent effective verbal communication. Prerequisite: Graduate standing and/or consent of department.

SPPA 745 ADVANCED CLINICAL PRACTICUM ON-CAMPUS (3) Supervised practicum experience includes the evaluation

and treatment of various types of speech and language disorders. Prerequisite: SPPA 690 and/or consent of department.

SPPA 746 ADVANCED CLINICAL PRACTICUM OFF-CAMPUS (3) Advanced clinical practice in the identification, assessment and treatment of various types of speech and language disorders in programs affiliated with TU Department of Communication Sciences and Disorders. Prerequisites: SPPA 745, GPA of 3.00, 75 graduate practicum clock hours, a minimum of 18 units of course work exclusive of clinical practicum, and consent of department.

SPPA 747 ADVANCED CLINICAL PRACTICUM IN SCHOOLS (3) Advanced clinical practicum in school programs affiliated with TU for graduate students in speech-language pathology. The experience includes the evaluation and treatment of various types of speech and language disorders. Prerequisites: SPPA 745, GPA of 3.00, 75 graduate practicum clock hours, a minimum of 18 units of course work exclusive of clinical practicum, and consent of department.

SPPA 748 ADVANCED PEDIATRIC PRACTICUM (3) Advanced clinical practice in the identification, assessment and treatment of various types of speech and language disorders in pediatric programs affiliated with the Department of Communication Sciences and Disorders. Prerequisites: SPPA 745, GPA of 3.00, 75 graduate practicum clock hours, a minimum of 18 units of course work exclusive of clinical practicum, and consent of department.

SPPA 796 INDEPENDENT STUDY IN SPEECH-LANGUAGE PATHOLOGY (1-3) Investigation in selected area of speech-language pathology. Prerequisite: Graduate standing and/or consent of department.

SPPA 797 DIRECTED READINGS IN SPEECH-LANGUAGE PATHOLOGY (1-3) Readings in a particular topic in speech-language pathology. Prerequisite: Graduate standing and/or consent of department.

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SPPA 798 ADVANCED CLINICAL PRACTICUM CONTINUUM ON-CAMPUS (3) Advanced clinical practicum for students in the Speech-Language Pathology program continuing in on-campus practicum experiences previously taken for credit. Supervised practicum experience includes the evaluation and treatment of various types of speech and language disorders. Prerequisite: SPPA 745 and/or consent of the department.

SPPA 799 CLINICAL PRACTICUM CONTINUUM OFF-CAMPUS (3) Advanced clinical practicum for students in the Speech-Language Pathology Program continuing in off-campus experiences previously taken for credit. Supervised practicum experience includes the evaluation and treatment of various types of speech and language disorders. Prerequisites: Prior off-campus practicum placement and/or consent of department.

SPPA 897 THESIS (6) Original investigation using an acceptable research method and design conducted under the direction of a faculty committee. Prerequisite: SPPA 713.

SPPA 898 THESIS (3) The previous course SPPA 897, taken over two consecutive terms.

SPPA 899 THESIS CONTINUUM (1)

THEATRE ARTS (THEA)

THEA 580 ADVANCED COSTUME DESIGN STUDIO (1-9) Independent studio in costume, scenery or lighting design. May be repeated for a maximum of 9 units. Prerequisite: Consent of instructor.

THEA 591 PRODUCTION DRAMATURGY (1-3) Practical experience in production dramaturgy, includes research, text analysis and educational outreach. Projects related to specific theatrical productions. May be repeated for a maximum of 9 units. Prerequisites: THEA 125; at least one of THEA 211, 212 and 213; and permission of instructor.

THEA 593 ADVANCED STUDY IN THEATRE (1-9) Independent study of an academic or creative nature, for majors only. May be repeated for a maximum of 9 units. Prerequisite: Approval of plan of study by instructor and graduate program director.

THEA 601 DRAMATURGY: INTERDISCIPLINARY (3) Investigation of the theory and techniques of combining disciplines for performance. Considerations of the issues of interdisciplinary performance.

THEA 602 DRAMATURGY: INTERCULTURAL (3) Investigation of the theory and techniques of theatrical performance in various cultures, as well as forms which incorporate a variety of cultural practices. Consideration of the issues of intercultural performance.

THEA 603 PERFORMANCE: SOLO (1-4) Creating solo performance by exploring language and environment through a variety of traditions, styles and techniques. May be repeated for up to 12 units. Prerequisite: Consent of graduate program director.

THEA 604 GRADUATE COSTUME DESIGN I (2 OR 4) Costume design through integrated seminars with directors, actors and designers to create original styles for productions. Prerequisite: Consent of instructor.

THEA 605 PERFORMANCE: ENSEMBLE (1-4) Creating collaborative performance by exploring language and environment through a variety of traditions, styles and techniques. May be repeated for up to 12 units. Prerequisite: Consent of graduate program director.

THEA 607 SELF-EMPOWERMENT IN THEATRE (3) Entrepreneurial management strategies for a self-empowered life in theatre. Prerequisite: Consent of graduate program director.

THEA 608 THEATRE DESIGN TECHNIQUES (1-3) The vocabulary and back-

ground needed to develop and communicate design concepts, to work collaboratively with other design artists, and to understand the needs of designing for different sizes and types of venues. Prerequisite: Consent of graduate program director and special permit.

THEA 609 TEXT CONSTRUCTION (3) Exploring a variety of means of developing theatrical text, with special attention to the relationship of language and structure. Prerequisite: Permission of instructor.

THEA 610 THEATRE SYSTEMS (1-3) A practical overview of technology. Prerequisite: Consent of graduate program director and special permit.

THEA 675 RESEARCH METHODS (3) Examining the text and context of performance, using a variety of theoretical methodologies. Prerequisite: Permission of instructor.

THEA 680-683 SPECIAL TOPICS (1-4) In-depth study in a selected area dependent upon faculty and student interest. May be repeated for a total of no more than 16 units. Prerequisite: Permission of instructor.

THEA 695 INDEPENDENT PROJECT IN THEATRE (1-9) Independent project in research, acting, directing or theatre production. May be repeated for a maximum of 9 units. Prerequisite: Permission of instructor.

THEA 710 TEACHING INTERNSHIP (3) Assisting a faculty mentor with the teaching of an undergraduate theatre course. Prerequisites: Consent of department chair, graduate program director and instructor.

THEA 720 GRADUATE DIRECTING (3) Development of directorial vision, emphasizing collaborative style and advanced problem solving including a directing activity. Prerequisite: Consent of graduate program director.

THEA 730 SOUND APPLICATION AND TECHNOLOGY (1-4) Students will explore the usage of sound technology in a real-time performance context and develop approaches toward integrating digital and organic ele-

ments in their work. Prerequisites: Consent of graduate program director and special permit.

THEA 740 GRADUATE PROJECT LABORATORY (1-4) Conceptualization, research and development of a graduate performance project. May be repeated for a total of no more than 16 units. Prerequisite: Consent of graduate program director.

THEA 750 GRADUATE PROJECT AND PERFORMANCE (1-4) Execution of a graduate performance project. May be repeated for a total of no more than 16 units. Prerequisite: Consent of graduate program director.

THEA 760 INTEGRATED SEMINAR (3) Working with guest artists to understand and apply specific theatrical aesthetics. May be repeated for a total of no more than 12 units. Prerequisite: Consent of graduate program director.

THEA 880 FINAL PROJECT (1-6) Culminating creative process that includes a research paper, and may include a production or project component. Prerequisite: Permission of instructor.

THEA 885 PROJECT CONTINUATION (1) Continuation of graduate project. Prerequisite: Previous registration of project work.

WOMEN'S STUDIES (WMST)

WMST 532 WOMEN'S CULTURE AND CREATIVITY (3) Study of the historical conditions influencing women's creativity, the nature of women's aesthetic achievements, and the emergence of new female cultural and artistic traditions. Prerequisite: WMST 231 or 232, or permission of instructor.

WMST 533 WOMEN AND AGING (3) American society's view of older women and the impact of stereotypes and images on their self-concepts. Prerequisite: 3 units in women's studies or social sciences.

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WMST 535 WOMEN, WORK AND FAMILY (3) Women's work examined historically and cross-culturally from an interdisciplinary perspective. Women's work in traditional societies, effect of industrialization on women's work in contemporary societies. Prerequisite: 3 units in social science or history.

WMST 536 WOMEN AND MEDICINE (3) A study of how gender has influenced the structure, content and practice of medicine in the 19th and 20th centuries with emphasis on disease theory and treatment; physicians' involvement in social policy; and focus on the history of nursing, women's entry into medical practice and women's health movements past and present. Prerequisite: 3 undergraduate units in women's studies or social sciences.

WMST 537 FEMINISM (3) Examination of feminism as a set of ideas, and the systematic application of those ideas to achieve political, social and economic quality. Prerequisite: 3 units in social sciences or women's studies.

WMST 538 WOMEN AND SEXUALITY (3) Examination of the politics of sexuality, the interaction between cultural definitions and evaluations of women's attempts to achieve sexual autonomy. Emphasis on how the meaning of sexuality changes over time, how women respond to these changes, and how they affect women. Prerequisite: 3 undergraduate units in women's studies or social sciences.

WMST 539 REPRODUCTIVE TECHNOLOGIES AND THE FUTURE OF MOTHERHOOD (3) Reproductive science and contraceptive technologies and their effect on contemporary society; focus on ethical and legal issues, and changing definitions of motherhood. Prerequisites: Two science courses, or one math and one science course.

WMST 540 WOMAN AS A CITIZEN (3) Examines the role of gender in defining citizenship, while performing a critical analysis of the principles of citizenship promulgated by leading contributors to Western political thought. Prerequisites: None.

WMST 545 WOMEN, ENVIRONMENT AND HEALTH (3) Relationships between economic development, health and the environment from a global perspective with a focus on women's roles in environmental management; how women's activism effects social and public policy agendas. Prerequisites: None.

WMST 570 TOPICS IN WOMEN'S STUDIES (3) An interdisciplinary examination of selected issues, themes or topics in women's studies. Variation in content in different terms; may be reelected. Prerequisite: One women's studies course or consent of instructor.

WMST 591 DIRECTED READING IN WOMEN'S STUDIES (1-4) Independent reading in women's studies with emphasis on interdisciplinary relationships. Topics selected by student in consultation with the instructor. May be repeated for a maximum of 6 units. Prerequisites: 15 units in interdisciplinary or departmental women's studies courses; minimum 3.00 average in women's studies; consent of instructor and of women's studies chair, graduate program director or adviser.

WMST 601 WOMEN AND GENDER IN THE WORKPLACE (3) Examination of the organization of work and the role of gender in the division of labor, power and authority, income and other rewards, in diverse work settings. Prerequisites: 9 units in women's studies and/or the social sciences and graduate standing.

WMST 603 THE DIVERSITY OF WOMEN (3) Examination of feminist scholarship on race, class and sexualities, particularly with regard to the distribution of power within a variety of institutions. Prerequisites: 9 units in women's studies and/or the social sciences and graduate standing.

WMST 604 WOMEN AND NFP LEADERSHIP; GOVERNANCE AND ADVOCACY (3) Examines the role of governance and advocacy in the not-for-profit organization with attention to women's roles and issues. Topics include strategic planning, board governance

and community power-building. Prerequisites: Graduate Standing.

WMST 605 WOMEN IN AN INTERNATIONAL CONTEXT (3) Examination of the diverse experiences of women in a variety of national and international contexts. Particular attention will be devoted to how global forces impact women's lives today and the diverse ways that women struggle against inequality. Prerequisites: 9 units in women's studies and/or the social sciences and graduate standing.

WMST 607 ADVANCED FEMINIST THEORY (3) Major feminist theories on women's experience, emphasizing the areas in the graduate concentrations: workplace, health, public policy and international. Prerequisites: 9 units in women's studies and/or the social sciences and graduate standing.

WMST 609 APPLIED RESEARCH METHODS AND SKILLS I (3) How to interpret, evaluate and conduct research about women and gender issues in organizations and society, using the computer, the Internet and statistical software for accessing and producing information. Prerequisites: 9 units in women's studies and/or the social sciences and graduate standing.

WMST 611 WOMEN, PUBLIC POLICY, AND SOCIAL CHANGE (3) How public policy affects the experiences of women and men, and groups to which they belong. Includes study of components of public policymaking, case studies of gender-related public policy, and methods of instituting change. Prerequisites: 9 units in women's studies and/or the social sciences and graduate standing.

WMST 613 WOMEN AND HEALTH (3) An interdisciplinary study of women's health from a holistic perspective that builds on socioeconomic, political and biological aspects of women's health. Prerequisites: 9 units in women's studies and/or the social sciences and graduate standing.

WMST 620 FIELD EXPERIENCE (3) Non-culminating field placement for students in organizations or agencies (including governmental) working on projects that serve women. Course includes a proposal, regular meetings with adviser, a journal and a final written report of the project. May be repeated once for a maximum of 6 units by student not electing the WMST 796 Internship option; site of placement may not be repeated. Prerequisites: Completion of a minimum of 9 units toward a master's in WMST and approval of the student's adviser and graduate program director.

WMST 670-679 SPECIAL TOPICS IN WOMEN'S STUDIES (3) Topics pertaining to WMST graduate concentrations. May be repeated for a maximum of 9 units. Prerequisites: 9 units in women's studies and/or the social sciences and graduate standing.

WMST 695 INDEPENDENT STUDY (3) Study and research including writing a research paper on a selected topic in women's studies. Prerequisites: 15 undergraduate or 9 graduate units in women's studies, graduate standing and consent of women's studies chair, graduate program director or adviser prior to registration.

WMST 6XX WOMEN AND NOT-FOR-PROFIT LEADERSHIP: GOVERNANCE AND ADVOCACY (3) Focuses on role of governance and advocacy in the not-for-profit organization with special attention to women's roles and issues. Includes strategic planning, board governance and community power-building.

WMST 6XX WOMAN AS CITIZEN (3) Role of gender in defining citizenship; critical analysis of the principles of citizenship promulgated by leading contributors to Western political thought.

WMST 796 INTERNSHIP IN WOMEN'S STUDIES (3) Intensive hands-on experience in approved organization related to student's concentration. Written report required upon completion. Must be taken in two separate

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terms for a total of 6 units. Prerequisites: Minimum of 9 units completed in graduate program in women's studies and consent of student's graduate adviser.

WMST 897 THESIS (6) Original research on a topic related to the student's concentration using acceptable research methods and design. May be based in extensive library, survey or field research. A thesis prospectus detailing the nature and scope of the investigation and the methods to be employed must be submitted and approved in advance to the student's

adviser and the graduate director. Students will be required to do an oral presentation of their thesis in a meeting with their graduate adviser and one other WMST faculty. Prerequisites: Completion of a minimum of 21 units toward the M.S. in WMST and completion of WMST 609.

WMST 898 THESIS (3) Same as WMST 897, taken over two consecutive terms (3, 3).

WMST 899 THESIS CONTINUUM (1) Continuation of thesis beyond the 6 units.



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326 ADMINISTRATION AND FACULTY

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Graduate Student Representative

Graduate Faculty

2009-2010

The date in parenthesis following the listing of each person is the date of first appointment in the university.

- MARIA ALEGRE-GONZALEZ, Assistant Professor, Foreign Languages; B.A., M.A., Ph.D., Universidad Autonoma of Madrid, Spain
- DANIEL AGLEY, Associate Professor, Health Science; B.S., M.S., Indiana University; Ed.D., University of Maryland (1971)
- OMAR, ALI, Assistant Professor, History; B.S., London School of Economics and Political Sciences; M.A., Ph.D., Columbia University
- MEG ALGREN, Associate Professor, APR, Communication Management; B.S., Ohio University; M.A., Cleveland State University; Ph.D., Kent State University (1997)
- NADIM ALKHAROUF, Computer & Information Sciences, B. Sc., M.S., Yarmouk University, Ph.D., George Mason University (2006)
- PATRICIA ALT, Professor, Health Science; A.B., Duke University; M.A., Ph.D., University of North Carolina (1987)
- BESS ALTWERGER, Professor, Educational Technology and Literacy; B.A., State University of New York at Stony Brook; M.A., Jersey City State College; Ed.D., University of Arizona (1989)
- MOSTAFA S. AMINZADEH, Professor, Mathematics; Graduate Program Director, Applied and Industrial Mathematics; B.S., Pahlavi University, Iran; M.S., California State University; Ph.D., Oregon State University (1988)
- LENA AMPADU, Associate Professor, English; B.A., Howard University; M.A., American University; Ph.D., University of Maryland (1976)
- VIRGINIA JOHNSON ANDERSON, Professor, Biological Sciences; B.S., Lamar State College of Technology; M.Ed., University of Georgia; Ed.D., University of Maryland (1968)
- JAMES M. ANTHONY, Associate Professor, Music; B.A., University of Arkansas; M.A., Ph.D., University of Michigan (1968)
- MARK ARUISAIS, Assistant Professor, Human Resource Development; B.S., Ithaca College; M.B.A. Rochester Institute of Technology; Ph.D. George Washington University (2007)
- ELIZABETH AUSTIN, Clinical Assistant Professor, Sociology, Anthropology & Criminal Justice, B.S., University of the State of NY; M.S., Ph.D., Binghamton University (2006)
- ALBERT E. AVERY, Professor, Finance; B.S., M.S. and Ph.D, Purdue University (1993)
- SHIVA AZADEGAN, Professor, Computer and Information Sciences; B.S., University of Tulsa; M.S., Ph.D., University of Minnesota (1992)
- HOWARD BAETJER, JR., Lecturer, Economics; B.A., Psychology; Ph.D., Economics, George Mason University
- MARGUERITE BAKER, Assistant Professor, Music; B.M., North Texas State University; M.M., Catholic University of America (2003)
- PETER N. BAKER JR., Professor, English; A.B., Harvard College; M.A., Johns Hopkins University; Ph.D., Brown University (1989)
- SEAN BAKER, Mass Communication Studies Graduate Program Director; Associate Professor, Mass Communication and Communication Studies; B.A., University of Minnesota; M.S., Michigan State University; Ph.D., University of Washington (2001)
- JENNIFER BALLENGEE, Associate Professor, English; B.A., Emory University; M.A., University of Georgia; Ph.D., Emory University (2001)
- DEBRA BALLINGER, Associate Professor, Kinesiology; B.A., Elmhurst College; M.A.,

- University of South Florida; Ph.D., Arizona State University (2007)
- DAVID BALLOU, Associate Professor, Music; B.M., Berklee College of Music; M.A., University of New Hampshire (2004)
- HONI J. BAMBERGER, Professor, Mathematics; B.S., M.Ed., Ph.D., University of Maryland, College Park (2002)
- CECYLIA BARCZYK, Professor, Music; B.M., M.M., Warsaw Conservatory; Post-graduate diploma, Moscow Conservatory; M.M., Yale University (1983)
- CELIA BARDWELL-JONES, Assistant Professor, Women's Studies; B.S., University of Utah; M.A., Ph.D., University of Oregon (2007)
- KENT B. BARNES, Associate Professor, Geography and Environmental Planning; B.S., Lock Haven State College; M.A., Kent State University; Ph.D., Rutgers, The State University of New Jersey (1990)
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- CHRISTOPHER E. BARTLETT, Professor, Art; Gallery Director; Art. Cert. Ed., St. Paul's College, England; B.Ed. (Hons) Bristol University, England; M.F.A., Syracuse University (1974)
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- JOANNA BASURAY, Professor, Nursing; B.S., M.S. University of Oklahoma; Ph.D. University of Maryland (1987)
- JAN BAUM, Assistant Professor, Art; Graduate Program Director, Art, Studio; B.F.A., Beaver College; M.F.A., University of Massachusetts at Dartmouth (2000)
- JANE K. BATES, Professor, Art; B.A., University of California, Los Angeles; M.Ed., Ed.D., Arizona State University (1986)
- NANCY BEARSS, Clinical Assistant Professor, Physician Assistant Studies; B.S., Bucknell University; MPH, Johns Hopkins University (2004)
- VENESSA BEAUCHAMP, Assistant Professor, Biological Sciences; B.A., UC Irvine; Ph.D., Arizona State University (2008)
- HARALD BECK, Assistant Professor, Biology; M.S., University of Erlanger Nuremberg, Germany; Ph.D., University of Miami (2005)
- GEOFFREY BECKER, Associate Professor, English; Graduate Program Director, Professional Writing; B.A., Colby College; M.F.A., University of Iowa Writers' Workshop (2000)
- CARL BEHM III, Professor, English; B.A., M.A., Ph.D., University of Maryland (1972)
- ERIC A. BELGRAD, Professor, Political Science; B.A., M.A., Ph.D., Johns Hopkins University (1966)
- MARGARET L. BENNER, Instructor, English; Director, Writing Support Program; B.A., Mt. St. Agnes College; M.A., Georgetown University (1989)
- DAVID BERGMAN, Professor, English; A.B., Kenyon College; M.A., Ph.D., Johns Hopkins University (1977)
- TERRY R. BERKELEY, Professor, Early Childhood Education; B.A., The Citadel; M.A., University of North Carolina at Chapel Hill; Ed.D., Harvard University (1995)
- ELIZABETH BERQUIST, Lecturer Special Education; B.A. Washington College, M.Ed. Towson University (2008)
- JAMES BINKO, Professor, Secondary Education; B.S., Towson University; M.A., Ph.D., University of Maryland (1962)
- LINDA BISHAI, Assistant Professor, Political Science; A.B., Harvard University; Ph.D., London School of Economics and Political Science
- JUDITH BLACKBURN, Assistant Professor, Audiology, Speech-Language Pathology and Deaf Studies; B.A., Connecticut College; M.S., University of Maryland, College Park; Ph.D., Indiana University

- NANCY BLAKE, Lecturer, Occupational Therapy & Occupational Science, B.S., Richmond Professional Institute, M.Ed., Auburn University (2006)
- ROBERT W. BLAKE JR., Associate Professor, Elementary Education; Graduate Program Director, MAT-Elementary Education; B.S., State University of New York, Albany; M.A.T., Brown University; Ph.D., The University of Illinois at Chicago (1997)
- GARRY BOLAN, Lecturer, Mass Communication and Communication Studies; B.S., Towson University; M.A., Ohio University; Ab.D., University of Maryland, College Park
- ANDREA BOUCHER, Professor, Kinesiology; M.Ed., Western Washington University; Ph.D., University of Maryland, College Park (1970)
- RAOUF N. BOULES, Professor and Chair, Mathematics; B.Sc., M.S., Alexandria University, Egypt; Ph.D., The Catholic University of America (1990)
- SUZANNE S. BOURDESS, Lecturer, Educational Technology and Literacy; B.S., York College of Pennsylvania; M.S., Towson University (1999)
- BETHANY BRAND, Associate Professor, Psychology; B.A., University of Michigan; M.A., Ph.D., University of Maryland (1993)
- JESSICA BRAUNSTEIN, Assistant Professor, Kinesiology; B.S., M.E.S.S., Ph.D., University of Florida (2006)
- KATHERINE BROADWATER, Associate Professor, Art; Director, Undergraduate Art Education; B.A., Capital University; M.A., Towson University; Ph.D., Union Institute and University (2002)
- LEONIE BROOKS, Associate Professor, Psychology; B.A., State University of New York at Stony Brook; M.S., Ph.D., Virginia Commonwealth University (1995)
- CHERYL BROWN, Associate Professor, English; B.A., M.A., Ph.D., University of Texas (1999)
- DANIEL BROWN, Associate Professor, Art; B.A., Towson University; M.F.A., University of Massachusetts (1975)
- GREGORY W. BRYANT, Associate Professor, Elementary Education; B.A., Greensboro College; M.Ed., University of North Carolina, Greensboro; Ed.D., Memphis State University (1990)
- SHARON BUCHBINDER, Professor and Chair, Health Science; B.A., University of Connecticut; M.A., University of Hartford; Ph.D., University of Illinois (1997)
- JUSTIN BUCKINGHAM, Associate Professor, Psychology; Graduate Program Director, Experimental Psychology; B.A., Siena College; M.A., SUNY Cortland; Ph.D., Ohio University (2000)
- STUART BURMAN, Lecturer, Psychology; B.S. University of Baltimore, M.S., Loyola College
- AMANDA BURNHAM, Assistant Professor, Art, B.A., Harvard University; MFA, Yale University (2007)
- BEVERLY J. BYE, Associate Professor, Nursing; B.S., Towson University; M.Ed., Loyola College; M.S., University of Maryland; Ed.D., Towson University (1997)
- CHRISTOPHER CAIN, Associate Professor, English; B.A., University of Georgia; M.A., University of Tennessee, Knoxville; Ph.D., Indiana University, Bloomington (2003)
- TEODORA CARABAS, Assistant Professor, Mass Communication and Communication Studies; B.A., M.A., University of Bucharest; Ph.D., Ohio University
- CLAUDIA CARLSON, Lecturer, Special Education; B.A., M.A., Fort Hays State University (2004)
- CAROL A. CARONNA, Assistant Professor, Sociology, Anthropology and Criminal Justice; B.A., University of California, Irvine; M.A., Ph.D., Stanford University (2002)
- LILLIAN C. CARTER, Associate Professor, Health Science; B.A., M.A.T., University of South Carolina; Ph.D., Temple University (1988)
- THOMAS CASCIERO, Professor, Theatre Arts; B.A., Towson State University; C.M.A., Laban Institute; Ph.D., The Union Institute (1990)
- RYAN E. CASEY, Associate Professor, Chemistry; B.S., Virginia Polytechnic Institute of Technology; Ph.D., Clemson (2000)

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- ISABEL CASTRO-VAZQUEZ, Assistant Professor, Foreign Languages; B.A., Universidade da Coruna; M.A., Ph.D., Florida State University (2004)
- CYNTHIA CATES, Professor, Political Science; Ph.D., University of Maryland, College Park (1993)
- MATTHEW S. CHAMBERS, Assistant Professor, Economics; B.A., Wabash College; M.S., Ph.D., Florida State University (2003)
- ROSE ANN CHRISTIAN, Associate Professor, Philosophy and Religious Studies; B.A., Wells; Ph.D., University of Pennsylvania (1986)
- ALAN CLARDY, Professor, Psychology and Human Resource Development; B.A., University of Houston; M.A. Southern Illinois University; Ph.D., University of Maryland, College Park (1998)
- ELIZABETH JOYCE CLIFFORD, Assistant Professor, Sociology, Anthropology, Criminal Justice; B.A., University of Toronto; M.A., Ph.D., Northwestern University (2000)
- MARION J. COCKEY, Assistant Professor, Sociology, Anthropology and Criminal Justice; A.B., Randolph-Macon Women's College; M.A., University of Tennessee (1969)
- JACK COLE, Lecturer, Secondary Education; B.A., The Catholic University of America; M.A.T., Wayne State University; Ph.D., University of Maryland (2002)
- LYNN COLE, Associate Professor, Elementary Education; B.S., M.Ed., Ph.D., University of Maryland (1989)
- SAMUEL G. COLLINS, Assistant Professor, Sociology, Anthropology and Criminal Justice; B.A., Rice University; M.A., Ph.D., American University (1999)
- PHILLIP COLLISTER, Associate Professor, Music; B.A., Marycrest College, Northwestern University; D.M.A., University of Maryland (1998)
- YU CONG, Assistant Professor, Accounting, M.S., Dalian University of Tech; Ph.D., Rutgers University
- RANDOL CONTRERAS, Assistant Professor, Sociology, Anthropology & Criminal Justice; B.A., M.Phil, Ph.D., University of New York (2007).
- LINDA COOPER, Assistant Professor, Mathematics; B.A., M.A., Ph.D., University of Maryland, College Park (2005)
- RITA COSTA GOMES, Assistant Professor, History; Habilitation, Ph.D., M.A., Licenciatur, Universidade Nova de Lisboa
- DONNA COX, Professor, Health Science; B.A., M.S., Ph.D., University of Maryland, Baltimore County (1996)
- LISA CRABTREE, Clinical Assistant Professor, Occupational Therapy and Occupational Science; B.S., Utica College of Syracuse University; M.S., Syracuse University (1987)
- LENEIDA CRAWFORD, Professor, Music; B.S., Virginia Commonwealth University; M.A., California State University (Fresno); D.M.A., University of Maryland (1996)
- JODY HERBERT CRIPPS, Assistant Professor, Audiology, Speech-Language Pathology and Deaf Studies; B.A., Gallaudet University; M.A., Ph.D., University of Arizona (2008)
- KERI-ANNE CROCE, Assistant Professor, Elementary Education, B.A., Boston University, M.A., Ph.D., Arizona State University (2007)
- NANCY CROWE, Senior Lecturer, Kinesiology; B.S., Frostburg State University; M.Ed., University of New Orleans; Ph.D., Ohio State University (2002)
- DARUSH DAVANI, Professor, Computer and Information Sciences; B.S., University of Gondishapour; B.S., M.S., D.Sc., George Washington University (1985)
- AYSE DAYI, Assistant Professor, Women's Studies; B.S., Bogazici University, Istanbul, Ph.D., Pennsylvania State University (2006)
- DAVID DAYTON, Assistant Professor, English; A.B., University of California at Santa Cruz; M.A., University of Puerto Rico; Ph.D., Texas Tech University (2005)
- MICHAEL DECKER, Associate Professor, Music; B.A., Millersville State College; B.S., Towson University; M.M., Peabody Conservatory of Johns Hopkins University (1977)
- CATHERINE DECOURSEY, Assistant Professor Special Education
- JANET DELANY, Professor, Occupational Therapy and Occupational Science; Occupational Science Program Director; B.A.,

- Immaculata College; Certification OT, University of Pennsylvania; M.S., University of Notre Dame; D.Ed., Pennsylvania State University (1999)
- ROXANA DELLAVECCHIA, Chair and Professor, Instructional Leadership and Professional Development; B.S., M.Ed., Towson University; Ph.D., University of Maryland (1991)
- SAMUEL DELLAVECCHIA, Lecturer, Reading, Special Education and Instructional Technology; B.A., Catholic University of America; MBA, Loyola College; J.D., University of Baltimore
- BARBARA DEMCHICK, Clinical Assistant Professor, Occupational Therapy and Occupational Science; B.S., University of Pennsylvania; M.S., Towson University (2004)
- BRYAN DEVAN, Assistant Professor, Psychology; B.Sc., M.A., Towson State University; Ph.D., McGill University
- TRUDY COBB DENARD, Associate Dean, College of Fine Arts and Communication; Associate Professor, Dance; B.S. Eastern Michigan University; M.F.A., University of Michigan (2004)
- CHARLES DIERBACH, Associate Professor, Computer and Information Sciences; B.S. Ithaca College; M.S., Ph.D., University of Delaware (1991)
- JAMES E. DI LISIO, Professor, Geography and Environmental Planning; Graduate Program Director, Professional Studies; B.S., Salem State; M.A., Wayne State University; Ph.D., University of Oklahoma (1975)
- CHRISTOPHER DILLON, Lecturer Music, DMA; MM; BM, Peabody Institute of the John Hopkins University (2008)
- JAMES A. DORN, Professor, Economics; B.S., Canisius College; Ph.D., University of Virginia (1976)
- MICHAEL DOWNS, Assistant Professor, English; B.A., University of Arizona; M.F.A. University of Arkansas (2007)
- MARISA DUDIAK, Lecturer, Early Childhood Education; B.S., Towson University; M.S., Johns Hopkins University (2007)
- KAREN DUGGER, Professor and Chair, Women's Studies; Director, National Center for Curriculum Transformation Resources on Women; B.A., Ph.D., Kent State University (1999)
- KIMBERLY DUKES, Assistant Professor, Sociology, Anthropology & Criminal Justice, B.A., Columbia University; Ph.D., Temple University (2008)
- EDWIN DUNCAN, Professor, English; B.A., Texas Tech; M.A., Ph.D., University of Texas at Austin (1993)
- MATTHEW DURINGTON, Assistant Professor, Sociology, Anthropology and Criminal Justice; B.A., University of Texas Austin; M.A., Ph.D., Temple University (2004)
- K EDGINGTON, Associate Professor, English; B.A., Ph.D., The American University (1976)
- SHARON EIFRIED, Associate Professor Emeritus, Nursing; R.N. Diploma, Saint Vincent's Hospital; B.S., Radford University; M.S., Rutgers University; Ph.D., University of Maryland (1990)
- CHRISTINE A. EITH, Assistant Professor, Sociology, Anthropology & Criminal Justice; B.A., Wake Forest University; M.A., Bowling Green State University; Ph.D., University of Delaware (2005)
- JOHN EGGER, Professor, Economics; B.S., Cornell University; Ph.D., New York University (1987)
- MICHAEL A. ELLIOTT, Assistant Professor, Sociology, Anthropology & Criminal Justice; B.A., M.A., San Joese University; Ph.D., Emory University (2008)
- DIANA C. EMANUEL, Professor, Audiology, Speech-Language Pathology and Deaf Studies; Graduate Program Director, Audiology; B.S., Towson University; M.S., Ph.D., Pennsylvania State University (1994)
- LINDA J. EMERICK, Associate Professor, Elementary Education; Graduate Program Director, Elementary Education; B.A., M.A., Georgia State University; Ph.D., University of Connecticut (2000)
- LUIS C. ENGELKE, Associate Professor, Music; Graduate Program Director, Music; B.M., B.M.E., Florida State University; M.A., M.M., Ohio State University; D.M.A., Arizona State University (1999)
- KAREN GOLDRICH ESKOW, Professor and Chair, Family Studies and Community

- Development; Graduate Program Director, Family Studies; B.S., University of Pennsylvania; M.A., Towson University; Ph.D., University of Maryland (1989)
- CHRISTOS C. EVANGELIOU, Professor, Philosophy and Religious Studies; B.A., University of Athens; M.A., Ph.D., Emory University (1986)
- KENNON EVANS, Lecturer, Special Education; B.S., Middle Tennessee State University; M.Ed., Middle Tennessee State University (2005)
- THOMAS G. EVANS, Associate Professor, Foreign Languages; B.A., University of Rochester; M.A., Johns Hopkins University (1967)
- TERRY B. EWELL, Professor and Chair, Music; B.M., M.M., Ph.D., University of Washington (2000)
- CHARLOTTE E. EXNER, Dean, College of Health Professions; B.S., Ohio State University; M.S., Johns Hopkins University; Ph.D., University of Maryland (1982)
- KAREN FALLON, Assistant Professor, Audiology, Speech-Language Pathology and Deaf Studies; B.S., M.S., Ph.D., Penn State
- BRIAN D. FATH, Associate Professor, Biological Sciences; B.S., Miami University; M.S., Ohio State University; Ph.D., University of Georgia (2001)
- MARGARET E. FAULKNER, Assistant Provost for Research on Learning; Associate Professor, Kinesiology and Psychology; B.S., West Chester State College; Ed.D., University of Northern Colorado (1970)
- M. REBECCA FEINBERG, Assistant Professor, Psychology; B.A., University of Wisconsin; M.A., Columbia University; Ph.D., University of Pennsylvania
- JINJUAN FENG, Assistant Professor, Computer & Information Sciences; B.A., Huazhong University of Science, P.R., China, Ph.D., University of Maryland, BC (2005)
- DARLENE FEWSTER, Associate Professor, Special Education; B.A., University of Maryland, Baltimore County; M.A., Loyola College; Ed.D., Johns Hopkins University (1992)
- JONATHAN FILER, Assistant Professor, Physics, Astronomy and Geosciences; B.S., Haverford College; M.S., Ph.D., University of North Carolina at Chapel Hill (1998)
- VICTOR B. FISHER, Associate Professor, Sociology, Anthropology and Criminal Justice; B.A., Bucknell University (1961)
- SUSAN M. V. FLAHERTY, Assistant Professor, Department of Finance; B.S., Pennsylvania State University; M.A., University of Delaware; Ph.D., Florida State University (2006)
- CHARLES C. FLIPPEN, Associate Professor and Chair, Mass Communication and Communication Studies; B.A., Washington and Lee University; M.A., Ph.D., University of North Carolina (1979)
- DONALD C. FORESTER, Professor, Biology; B.A., M.S., Texas Tech University; Ph.D., North Carolina State University (1974)
- KATHERINE FOWLER, Assistant Professor, Special Education; B.A., MA, Ph.D. University of South Florida (2008)
- HEATHER FOX, Assistant Professor, Instructional Leadership and Professional Development; B.A., Loyola College in MD; M.S., Ph.D., Virginia Tech (2000)
- MARIA P. FRACASSO, Dean, Honors College; Professor, Psychology; B.S., M.S., Ph.D., Fordham University (1994)
- MARTIN FREEDMAN, Professor, Accounting; Graduate Program Director, Accounting and Business Advisory Services; B.S., State University of New York at Buffalo; M.S., University of Pennsylvania; Ph.D., University of Illinois (2000)
- LARRY FROMAN, Professor, Psychology and Human Resource Development; B.A., City College of New York; M.A., Ph.D., Wayne State University (1980)
- JACK FRUCHTMAN JR., Professor, Political Science; B.A., Hobart College; M.A., University of California; Ph.D., Johns Hopkins University (1985)
- WOLFGANG FUCHS, Professor, Philosophy and Religious Studies; B.S., Duquesne University; M.A., Ph.D., Pennsylvania State University (1969)
- KARL FUGELSO, Assistant Professor, Art; B.A., University of Virginia; M.A., M.Phil., Ph.D., Columbia University (2000)

- JULEY FULCHER, Lecturer, Psychology; B.S., Pennsylvania State University; M.A., Ph.D., John Hopkins University; J.D., Georgetown University Law School
- BONNIE FULLER, Clinical Assistant Professor, Nursing, B.S.N., University of Indianapolis, M.S.N., Indiana University.
- M. PAZ GALUPO, Professor, Psychology; B.A., Miami University; M.A., Ph.D., University of Arkansas (1996)
- NING GAO, Assistant Professor, Finance Department; B.A., Ren Min University, China; M.S., Florida State University; Ph.D., University of Pittsburgh (2006)
- WHITNEY GARCIA, Lecturer, Sociology, Anthropology and Criminal Justice; B.S., Towson State University; M.A., Ph.D., University of Maryland, Baltimore County (2005)
- DEBORAH GARTLAND, Professor, Special Education; B.S.E., Westfield State College; M.Ed., North Adams State College; Ph.D., Pennsylvania State University (1986)
- GAIL E. GASPARICH, Professor, Biological Sciences; Graduate Program Director, Biology; B.S., College of William and Mary; Ph.D., Pennsylvania State University (1996)
- GEORGE C. GEORGIU, Professor, Economics; B.A., Drew University; Ph.D., George Washington University (1995)
- CINDY GISSENDANNER, Professor, History; A.B., Vassar College; Ph.D., University of Pennsylvania (1987)
- JIN KANG GONG, Dean, College of Graduate Studies and Research; Associate Vice President for Research; Professor, Chemistry; B.S., East China Normal University; Ph.D., Purdue University (1990)
- BRIAN J. GORMAN, Assistant Professor, Sociology, Anthropology & Criminal Justice; B.A., Stony Brook University; M.A., Dublin, Ireland, J.D., New York Law (2006)
- SHARON GLENNEN, Professor and Chair, Audiology, Speech-Language Pathology and Deaf Studies; B.S., M.S., Purdue University; Ph.D., Penn State
- T. ELIZABETH GOODE, Associate Professor, Mathematics; B.S., Excelsior College; M.A.T., New York State University College at Cortland; Ph.D., SUNY at Binghamton (2002)
- GEOFFREY R. GOODSON, Professor, Mathematics; B.Sc., Hull University, UK; M.Sc., Warwick University, UK; Ph.D., University of Sussex (1989)
- JOHN M. GOVERN, Professor, Psychology; B.S., Albright College; M.A., Ph.D., Temple University (1989)
- SHEILA GREEN, Clinical Assistant Professor, Nursing; B.S., Tuskegee Institute of Nursing; M.S., University of Maryland, Baltimore; Ph.D. University of Maryland Baltimore County (2002)
- SUSAN E. GRESENS, Associate Professor, Biological Sciences; B.S., State University of New York College at Oneonta; M.S., University of Wisconsin, Madison; Ph.D., University of Chicago (1995)
- FRANCIS GUEVREMONT, Assistant Professor, Foreign Languages; B.A., M.A., Université de Montreal; Ph.D., Yale University (2002)
- TONI GUIDI, Lecturer, Special Education; B.S., Binghamton University; M.S., Hofstra University (2004)
- H. GEORGE HAHN II, Professor, English; Graduate Program Director, Humanities; B.S., Mount St. Mary's College; M.A., University of Maryland; M.L.A., Johns Hopkins University; Ph.D., University of Maryland (1965)
- SUSAN HAIGLER-ROBLES, Professor, Dance; B.A., Columbia College, South Carolina; MFA, Ed.D., Temple University (1993)
- SARAH A. HAINES, Associate Professor, Biological Sciences; Graduate Program Director, Science Education; B.A., Bucknell University; M.A. Salisbury State University; M.S., Ph.D., University of Georgia (2000)
- DIANE HALL, Assistant Professor, Family Studies and Community Development, B.A., Ph.D., University of Maryland Baltimore County
- BETH HALLER, Professor, Mass Communication and Communication Studies; B.A., Baylor University; M.A., University of Maryland; Ph.D., Temple University (1996)

- MARILYN TULS HALSTEAD, Associate Professor, Nursing; R.N. Diploma, Blodgett Memorial Hospital School of Nursing, Grand Rapids; B.S.N., Regents College, University of the State of New York; M.S., University of Delaware; Ph.D., University of Maryland (1999)
- ROBERT HAMMELL, Assistant Professor, Computer and Information Sciences; B.S., Arkansas State University; M.S., Air Force Institute of Technology; Ph.D., Wright State University (2001)
- SETH HAMMER, Associate Professor, Accounting; B.S., Syracuse University; MBA, Baruch College, City University of New York; Ph.D., University of Pittsburgh; CPA, states of Md., N.Y., N.J. (1994)
- JUDY HARRIS, Assistant Professor, Marketing; B.B.A., Ph.D., University of Houston (2006)
- GE HAN, Associate Professor, Mathematics; B.S., Beijing University, China; M.S., Zhejiang, China; Ph.D., University of Pittsburgh (2003)
- SUSAN HANSON, Lecturer, Secondary Education; B.S., M.Ed., Towson University (2003)
- CLARINDA HARRISS, Professor, English; B.A., Goucher College; M.A., Johns Hopkins University (1982)
- CINDY HARTZLER-MILLER, Associate Professor, Secondary Education; B.A., Goshen College; B.S., Virginia Commonwealth University; Ph.D., Michigan State University (1999)
- THEODORE HENDRICKS, Lecturer, English; B.A., St. John's College; M.A., John Hopkins University; Ph.D., The Catholic University of America
- JAY HERZOG, Professor and Chair, Theatre Arts; B.A., Brooklyn College; M.F.A., University of Massachusetts, Amherst (1994)
- EVA JACKSON HESTER, Associate Professor, Audiology, Speech-Language Pathology and Deaf Studies; B.S., Texas Woman's University, M.S., San Francisco State University, Ph.D., University of Maryland, College Park
- MICHAEL E. HICKEY, Naomi Price Hentz Distinguished Professor, Instructional Leadership and Professional Development; B.A., B.S., Ph.D., University of Washington-Seattle (1999)
- DAVID HILL, Lecturer, Special Education; B.S., University of Maryland, College Park; M.Ed., Coppin State College (2006)
- HARRY HOCHHEISER, Assistant Professor, Computer and Information Sciences; B.S., M.S., Massachusetts Institute of Technology, Ph.D., University of Maryland (2006)
- MATTHEW HODDIE, Assistant Professor, Political Science; B.A., Boston University, Ph.D., University of California at Davis (2001)
- SUNGCHUL HONG, Assistant Professor, Computer and Information Sciences; B.S., Soongsil University; M.S., Ph.D., University of Texas at Dallas (2002)
- XUEZHANG (JOHN) HOU, Associate Professor, Mathematics; M.S., Northeast Normal University, China; Ph.D., Oakland University (2000)
- MARION R. HUGHES, Sociology, Anthropology & Criminal Justice; B.A., Franklin & Marshal College; M.A., and Ph.D., University of North Carolina (1998)
- J. SUSAN ISAACS, Associate Professor, Art; B.A., M.A., Ph.D., University of Delaware (1993)
- LORI A. JACKMAN, Assistant Professor, Special Education; B.S. University of Connecticut MA & Ed.D - The Johns Hopkins University; M.S. & C.A.S. Towson University (2008)
- THERESA JACKSON, Assistant Professor, Health Science; B.S., University of Maryland; M.P.H., University of North Carolina, Chapel Hill; Ph.D., University of Maryland (2008)
- JODI M. JACOBSON, Assistant Professor, Family Studies; B.S., M.S.W., Ph.D., University of Maryland (2005)
- BHARAT JAIN, Associate Professor, Finance; B.S., Delhi College of Engineering; M.B.A., Ph.D., Pennsylvania State University (1992)
- HAIG JANIAN, Professor, Art; B.A., M.F.A., Rutgers University (1970)
- GERALD JEROME, Assistant Professor, Kinesiology; B. A., Oglethorpe University; M.S., University of Arizona; Ph.D., University of Illinois (2006)

- LIJUN JIN, Associate Professor, Elementary Education; B.A., M.A., Shanghai Teachers College; Ed.D., Indiana University of Pennsylvania (2000)
- CRAIG T. JOHNSON, Professor, Psychology; B.A., University of Wisconsin; M.A., Ph.D., Johns Hopkins University (1974)
- IONA JOHNSON, Clinical Assistant Professor, Audiology, Speech-Language Pathology and Deaf Studies; B.S., George Washington University; M.S., Loyola College (2002)
- L. SCOTT JOHNSON, Professor, Biological Sciences; B.A., St. Olaf College; M.A., Northern Arizona University; Ph.D., University of Calgary (1994)
- PAUL E. JONES, Professor, Instructional Leadership and Professional Development; A.B., Pfeiffer College; M.A., Appalachian State University; Ed.D., University of Virginia (1971)
- JACQUELYN D. JORDAN, Professor and Chair, Nursing; B.S.N., Western Connecticut State University; M.S.N., Yale University; Ph.D., Adelphi University (2003)
- MICHAEL JOTHEN, Professor, Music; Graduate Program Director, Music Education; B.A. St. Olaf College; M.M., Case Western Reserve; Ph.D., Ohio State University (1993)
- CYNTHIA KALODNER, Professor, Psychology; B.A., Rutgers University; M.S., Ph.D., Pennsylvania State University (2002)
- GAIL KAPLAN, Associate Professor, Mathematics; B.A., Goucher College, M.S., Ph.D., State University of New York, Stony Brook (2004)
- RAMESH K. KARNE, Professor, Computer and Information Sciences; Graduate Program Director, Applied Information Technology (D.Sc.); B.E., Osmania University, India; M.S., University of Wisconsin; Ph.D., George Mason University (1995)
- MARY KATSAFANAS, Lecturer, Elementary Education; B.S., Towson University; M.S., Johns Hopkins University
- KIMBERLY KATZ, Assistant Professor, History; B.A., Emory University; M.A., Ph.D., New York University (2003)
- SHOHREH KAYNAMA, Dean, College of Business and Economics; Associate Professor, Marketing and e-Business; B.A., Towson University; MBA, University of Baltimore; Ph.D., George Washington University (1989)
- KEVIN KENNEDY, Assistant Professor, Management; B.A., University of Alberta; Ph.D., Texas Tech University (2006)
- TODD W. KENREICH, Associate Professor, Secondary Education; B.A., Georgetown University; M.A., Ph.D., Ohio State University (2001)
- VICKY KENT, Clinical Associate Professor, Community Health; B.S., William Carey College; M.S., Ph.D., University of Maryland, Baltimore (1999)
- JEFF KENTON, Assistant Professor, Educational Technology and Literacy; Graduate Program Director, Instructional Technology; B.A., University of Iowa; M.S., Ph.D., Iowa State University (2002)
- KWANGMI KIM, Associate Professor, Mass Communication and Communication Studies; B.A., M.A., Ewha Women's University, Korea; Ph.D., Pennsylvania State University (2003)
- OHOE KIM, Professor, Mathematics; B.A., Korean University; M.A., University of Rochester; Ph.D., University of Rochester (1972)
- YANGGON KIM, Associate Professor, Computer and Information Sciences; Graduate Program Director, Computer Science; B.S., M.S., Seoul National University; Ph.D., Pennsylvania State University
- MUBINA H. KIRMANI, Professor, Early Childhood Education; B.Ed., M.Ed., University of Nairobi, Kenya; C.A.S., Ed.D., Harvard University (1994)
- WILLIAM KLEINSASSER, Professor, Music; B.A., University of Oregon; M.M., D.M.A., Indiana University (1992)
- JON-DAVID KNODE, Lecturer, Educational Technology and Literacy; B.S., MBA, D.C.D., Salisbury University (2002)
- JAYE KNUTSON, Professor, Dance; B.S., University of Nevada, Las Vegas; M.A., University of Hawaii, Manoa (2001)
- MIA J. KO, Assistant Professor, Health Science; B.A., Case Western Reserve University; M.Ed., Temple University; Ph.D.,

- University of Maryland (1999)
- RAJESWARI M. KOLAGANI, Assistant Professor, Physics, Astronomy and Geosciences; M.Sc., Brilla Institute of Technology and Science; Ph.D., Indian Institute of Science (2001)
- ALEXEI KOLESNIKOV, Assistant Professor, Mathematics, M.S., Novosibirsk University; M.S., and Ph.D., Carnegie Mellon University (2007)
- DANA D. KOLLMAN, Lecturer, Sociology, Anthropology & Criminal Justice, B.S., Towson University; M.A., Ph.D., American University (1998)
- PEGGY KORCZAK, Associate Professor, Audiology, Speech-Language Pathology and Deaf Studies; B.A., University of Vermont; M.S., Columbia University; Ph.D., City University of New York (2001)
- MICHAEL KORZI, Associate Professor, Political Science; B.A., University of Pittsburgh; M.A., Pennsylvania State University; Ph.D., State University of New York, Albany (1999)
- RICHARD M. KRACH, Professor, Mathematics; B.S., M.A., Ph.D., Ohio State University
- BRIAN KREISMAN, Assistant Professor, Audiology, Speech-Language Pathology and Deaf Studies; B.S., Saint Louis University; M.S., Washington University; Ph.D., University of Florida
- NICOLE V. KREISMAN, Assistant Professor, Audiology, Speech-Language Pathology and Deaf Studies; B. A., University of Northern Iowa; M.S., University of Memphis; Ph.D., University of Florida
- OLGA KRITSKAYA, Lecturer, Reading, Special Education and Instructional Technology; B.S., Technological University, Petersburg, Russia; M.A., Herzen State Pedagogical University, Russia; M.A., Ph.D., Michigan State University (2004)
- THOMAS G. KRUGGEL, Associate Professor, Psychology; B.A., University of Michigan; Ph.D., Wayne State University (1974)
- KARLA KUBITZ, Associate Professor, Kinesiology; B.A., University of West Florida; M.S., University of Texas at Dallas; Ph.D., Arizona State University
- MARTHA J. KUMAR, Professor, Political Science; B.A., Connecticut; M.A., Ph.D., Columbia University (1971)
- ANGEL KUMCHEV, Assistant Professor, Mathematics; B.S., Plovdiv University (Bulgaria); Ph.D., University of South Carolina (2005).
- WILLIAM LAHNEMAN, Assistant Professor, Political Science, B.S., Naval Academy; M.A., Naval Postgraduate School; Ph.D., Johns Hopkins University (2006)
- JENNIFER J. LANGDON, Lecturer, Sociology, Anthropology and Criminal Justice; B.A., Wesleyan University; M.A., University of Baltimore; Ph.D., George Mason University (2005)
- JOHN S. LAPOLLA, Assistant Professor, Biological Sciences; B.S., Stockton College; Ph.D., Rutgers University (2006)
- MARY ELLEN C. LASHLEY, Associate Professor, Nursing; R.N., B.S. Towson University; M.S., University of Maryland, Baltimore; Ph.D., University of Maryland (1986)
- BARBARA LASTER, Professor, Educational Technology and Literacy; Graduate Program Director, Reading; B.S., University of Florida; M.S., Ohio University; Ed.D., Virginia Polytechnic and State University (1994)
- KIMBERLY A. LAUFFER, Associate Professor, Mass Communication and Communication Studies; B.A., M.A., Michigan State University; Ph.D., University of Florida (2000)
- SONIA LAWSON, Associate Professor, Occupational Therapy and Occupational Science; Graduate Program Director, Occupational Therapy; B.S., Towson University; M.Ed., Ph.D., University of Maryland, College Park (2005)
- JONATHAN LAZAR, Associate Professor, Computer and Information Sciences; B.B.A., Loyola College; M.S., Ph.D., University of Maryland at Baltimore
- BRENDA LEACH, Assistant Professor, Music; B.M., Susquehanna University; M.M., Eastman School of Music; D.M.A., Eastman School of Music (2005)
- JEONG-JOON LEE, Assistant Professor, Eco-

- nomics; B.A., Yonsei University, Korea; Ph.D., Stanford University (2001)
- BEVERLY C. LEETCH, Associate Professor, Foreign Languages; B.A., Mary Baldwin College; M.A., Ph.D., Johns Hopkins University (1973)
- JONATHAN LESHNOFF, Associate Professor, Music; B.M., Peabody Conservatory; B.A., Johns Hopkins University; M.M., Peabody Conservatory; D.M.A., University of Maryland (2001)
- STEVEN LEV, Associate Professor, Physics, Astronomy and Geosciences; Graduate Program Director, Environmental Science; B.S., Dickinson College; M.S., University of Cincinnati; Ph.D., State University of New York at Stony Brook (2000)
- MARGUERITE LEVIN, Associate Professor, Music; B.M., North Texas State University; M.M., Catholic University; D.M.A., University of Maryland
- JOANNE LI, Associate Professor and Chair, Finance; B.S., M.S., Florida State University (2006)
- LAURA LISING, Assistant Professor, Physics, Astronomy and Geosciences; B.S., University of Virginia; M.A., Ph.D., University of California at Berkeley (2003)
- JOYCE CURRIE LITTLE, Professor, Computer and Information Sciences; B.S., Northeast Louisiana State University; M.S., San Diego State University; Ph.D., University of Maryland, College Park (1981)
- HARVEY LILLYWHITE, Professor, English; M.A., Columbia University, Ph.D., University of Utah (1984)
- XIAOMING LIU, Assistant Professor, Elementary Education, B.A., Yantai Teachers University, China; M.Ed., Ph.D., Texas Tech University (2008)
- NANCY LONGNECKER, Lecturer, Instructional Leadership and Professional Development; B.S., Lebanon Valley College; M.Ed., Towson State University
- BOON H. LOO, Professor, Chemistry; B.S., M.S., Victoria University—Wellington, New Zealand; M.A., Ph.D., University of Illinois, Chicago (2002)
- RAYMOND P. LORION, Dean, College of Education; Professor, Instructional Leadership and Professional Development; B.S., Tufts University; Ph.D. University of Rochester (2004)
- DAVID C. LOVEWELL, Lecturer, Secondary Education; B.S., West Virginia Wesleyan College; M.Ed., Loyola University; Ed.D., Nova University (2001)
- WENDY LOWER, Assistant Professor, History; B.A., Hamilton College; M.A., Ph.D., American University (2004)
- CHAO LU, Professor, Computer Science and Acting Dean, College of Graduate Studies and Research; B.A., Shandong University; M.S., Ph.D., City College of New York (1990)
- KANG SHOU LU, Assistant Professor, Geography; B.S., M.S., Shaanxi Normal University; Ph.D., Clemson University (2005)
- DIANE LUCHESE, Associate Professor, Music; B.M., Manhattan School of Music; M.M., New England Conservatory; Ph.D., Northwestern University (1999)
- FRANCES D. LUTHER, Assistant Professor, Educational Technology and Literacy; B.S., University of Regina; M.S., University of Alberta; Ph.D., University of Saskatchewan (2001)
- CATHERINE MADERAZO, Assistant Professor, Elementary Education; B.A., M.A., University of California; Ph.D., Arizona State University (2008)
- NAOKO MAESHIBA, Assistant Professor, Theatre Arts; B.A., M.A., Kwansei Gakuin University; M.F.A., University of Hawaii, Manda (2004)
- CRISTINA MAGALDI, Associate Professor, Music; B.A., University of Brasilia, Brazil; M.M., University of Reading, England; Ph.D., University of California, Los Angeles (1998)
- LINDA R. MAHIN, Associate Professor, English; M.S., University of Baltimore; Ph.D., University of Illinois (1987)
- MICHELLE E. MANASSE, Assistant Professor, Sociology, Anthropology & Criminal Justice; B.A., Franklin & Marshall College; M.A., and Ph.D., Emory University (2005)
- SUSAN MANOCCHIA, Lecturer, Educational Technology and Literacy; B.S., University of Rhode Island; M.Ed. Salisbury University (2006)

- BARRY MARGULIES, Associate Professor, Biological Sciences; B.S., Massachusetts Institute of Technology; Ph.D., Johns Hopkins University School of Medicine (2001)
- RITA D. MARINHO, Professor, Women's Studies; Director, Women's Studies Graduate Program; B.A., University of Massachusetts-Dartmouth; M.A., Ph.D., Brown University (2003)
- PRISCA A. MARTENS, Professor, Elementary Education; B.A., M.Ed., Valparaiso University; Ph.D., University of Arizona (2001)
- RAYMOND MARTENS, Assistant Professor, Art; B.F.A., Minneapolis College of Art & Design; MA., Arizona State University (2007)
- CHARLES L. MARTIN, Professor, Accounting, B.S., University of Maryland, College Park; M.S., George Washington University
- LISA MARTINELL, Clinical Assistant Professor, Family Studies and Community Development; B.A., University of Toledo; M.A. Pratt Institute (2006)
- GILDA MARTINEZ, Assistant Professor, Educational Technology and Literacy; B.S., University of Maryland, College Park; M.S., Ed.D., John Hopkins University (2006)
- ANTOINETTE MARZOTTO, Professor, Political Science; B.A., University of California; M.A., Ph.D., University of Connecticut (1975)
- BRIAN S. MASTERS, Professor, Biological Sciences; B.S., Ph.D., University of Florida (1989)
- JENEE MATEER, Assistant Professor, Art; B.A., University of Virginia; MFA, Maryland Institute College of Art (2007)
- JONATHAN MATTANAH, Associate Professor, Psychology; B.A., Yale University; M.A., Ph.D., University of California at Berkeley (1999)
- SHANNON MATHEWS, Assistant Professor, Health Science; B.A., Pomona College; M.A., Ph.D., University of Kentucky (2005)
- TONIA MATTHEWS, Assistant Professor and M.F.A. Director, Art; B.F.A., Indiana University; M.F.A., Louisiana State University (1993)
- MELISSA MCCABE, Assistant Professor, Music; B.M., Simpson College; M.M. Ph.D., University of Missouri-Kansas City
- ALISON MCCARTNEY, Associate Professor, Political Science; B.A., Syracuse University; M.A., Ph.D., University of Virginia (2001)
- PAUL MCCARTNEY, Assistant Professor, Political Science; B.A., Rutgers University; M.A., Ph.D., University of Virginia (2006)
- GEORGE J. MCCOOL, Associate Professor, Foreign Languages; B.A., University of Scranton; Licence es lettres, Universite de Reims; M.A., Ph.D., Cornell University (1990)
- WAYNE MCKIM, Professor, Geography and Environmental Planning; B.A., M.A., Michigan State University; Ph.D., Northwestern University (1971)
- JOHN C. McLUCAS, Professor, Foreign Languages; B.A., Wesleyan University; M.A., Ph.D., Yale University (1984)
- JOAN D. MCMAHON, Professor, Family Studies and Community Development; B.S., M.A., University of Maryland; Ed.D., George Washington University (1973)
- AUDRA MCMULLEN, Associate Professor, Mass Communication and Communication Studies; B.A., Moorhead State University; M.A., Bowling Green State University; Ph.D., Ohio University (1998)
- SCOT MCNARY, Assistant Professor, Educational Technology and Literacy; B.S., Arizona State University; M.A., Ph.D., University of Maryland, College Park (2005)
- MORNA M. MCNULTY, Associate Professor, Elementary Education; B.A., M.A., University of Connecticut; Ph.D., University of Virginia
- MOLLY MEE, Assistant Professor, Secondary Education; B.A., University of Dayton; Ed.D., George Washington University (2006)
- GABRIELE MEISELWITZ, Assistant Professor, Computer & Information Sciences; B.S., Technical College of Hamburg, Germany; M.S., Ed.D., Towson University (2005)
- EVA MENGELKOCH, Associate Professor, Music; Undergraduate Studies, Folkwang

- Hockshule; M.M., D.M., Indiana University (1999)
- MARY BETH MERRYMAN, Associate Professor, Occupational Therapy and Occupational Science; B.S., Ohio State University; M.S., Towson University; Ph.D., University of Maryland, Baltimore County (2002)
- CHARLES MEYER, Lecturer, Special Education; Advising Coordinator; B.S., Towson University; M.Ed., Towson University CASE (1996)
- JEAN M. K. MILLER, Chair and Professor, Art; B.F.A., St. Cloud State University; M.F.A., California College of the Arts. (2004)
- STEPHEN MOGGE, Associate Professor, Educational Technology and Literacy; Graduate Program Director, Reading; B.A., University of Illinois-Urbana; M.Ed., Ph.D., University of Illinois-Chicago (2002)
- JOHN M. MORGAN III, Professor, Geography and Environmental Planning; B.S., M.A., Towson University; Ph.D., University of Maryland (1984)
- BRUCE MORTENSON, Associate Professor, Psychology; B.A., SUNY Plattsburgh; M.A., Psy.S., Gallaudet University; M.A., Ph.D., Louisiana State University (2000)
- TODD MOYER, Associate Professor, Mathematics; B.S., Shippensburg University; M.S., Millersville University; Ed.D., Temple University (2003)
- ALICIA K. MUELLER, Associate Professor, Music; B.S., Tennessee Technological University; M.S., University of Illinois; D.Ed., Arizona State University (2000)
- DENNIS C. MUNIAK, Associate Professor, Political Science; B.A., State University of New York at Buffalo; M.R.P., Ph.D., Syracuse University (1989)
- GEOFFREY MUNRO, Associate Professor, Psychology; B.A., Edinboro University of Pennsylvania; M.A., Ph.D., Kent State University (2002)
- PAUL MUNROE, Associate Professor, Sociology, Anthropology and Criminal Justice, B.A., San Jose State University; A.M., Ph.D., Stanford University (2001)
- JOHN J. MURUNGI, Professor and Chair, Philosophy and Religious Studies; B.A., Beloit College; M.A., Ph.D., Pennsylvania State University (1969)
- TOOTOONCHI NAHID, Assistant Professor, Art; M.F.A., Art Institute of Chicago, (2007)
- JANE NEAPOLITAN, Associate Professor, Elementary Education; B.A., Sacred Heart University; M.S. University of Bridgeport; Ed.D., Columbia University (1999)
- JAY A. NELSON, Professor, Biological Sciences; B.A., B.S., University of Washington; M.S., Ph.D., University of Wisconsin, Madison (1993)
- H. WAYNE NELSON JR., Associate Professor, Health Science; B.A., M.A., Portland State University; M.A., California State University; MBA, City University; Ph.D., Oregon State University (1998)
- GLORIA NEUBERT, Professor, Secondary Education; B.S., M.Ed., Towson University; Ph.D., University of Maryland (1972)
- ELIZABETH NEVILLE, Acting Chair, Special Education; M.S. B.S., MA, Towson University Ed.D., The Johns Hopkins University (2008)
- FLORENCE NEWMAN, Professor, English; B.A., M.A., University of Virginia; Ph.D., Cornell University (1987)
- JOSHUA I. NEWMAN, Assistant Professor, Kinesiology; B.S., M.S., University of Memphis; Ph.D., University of Maryland (2005)
- NHUNG NGUYEN, Assistant Professor, Management; B.S., Hanoi University; M.S., University of Tennessee; Ph.D., Virginia Commonwealth University
- HOWARD L. NIXON II, Professor, Sociology, Anthropology and Criminal Justice; B.A. Lehigh University; Ph.D., University of Pittsburgh (1995)
- STEPHEN NUNNS, Assistant Professor and Graduate Program Director, Theatre Arts; B.A., Bennington College; M.F.A. Brooklyn College (2006)
- MICHAEL O'LEARY, Professor, Mathematics and Computer Science; Director, Center for Applied Information Technology; Graduate Program Director, Applied Information Technology and Integrated Homeland Security Management; B.S., Benedictine College; M.S., Ph.D., Northwestern (1998)

340 ADMINISTRATION AND FACULTY

- MICHAEL T. O'PECKO, Professor, Foreign Languages; B.A., Pennsylvania State University; M.A., Ph.D., Johns Hopkins University (1973)
- KATHLEEN T. OGLE, Acting Graduate Program Director, Nursing; B.S., M.S., Bowie State University; Ph.D., University of Maryland
- SETH OVADIA, Assistant Professor, Sociology, Anthropology and Criminal Justice; B.A., Swarthmore College; M.A., Ph.D., University of Maryland, College Park (2003)
- JESSICA V. PALLADINO, Assistant Professor, Educational Technology and Literacy; B.S., M.Ed., Ph.D., University of Maryland, College Park (2007)
- STEPHEN PALLETT, Clinical Faculty, Audiology, Speech-Language Pathology and Deaf Studies; B.A., University of Maryland; M.S., Towson University; Au.D., University of Florida (2003)
- JAMES R. PAULSEN, Professor, Art; B.A., Western Illinois University; M.A., Northern Illinois University (1969)
- FREDERICK J. PARENTE, Professor, Psychology; B.A., California State University; M.A., Ph.D., University of New Mexico (1975)
- MARK PELLOWSKI, Associate Professor, Audiology, Speech-Language Pathology and Deaf Studies; B.A., University of Maine; M.S., Syracuse University; Ph.D., Vanderbilt University (2002)
- HERBERT PETRI, Professor, Psychology; A.B., Miami University; M.A., Ph.D., Johns Hopkins University (1971)
- GERALD PHILLIPS, Professor, Music; B.S., Central Michigan State University; M.A., University of Cincinnati; Ph.D., Temple University (1971)
- STEVEN PHILLIPS, Assistant Professor, History; B.A., George Washington University; Ph.D., Georgetown University (1999)
- SHARMA N. PILLUTLA, Associate Professor, Management; B.S., Institute of Technology; M.S., University of Bombay; Ph.D., Syracuse University
- RONN PINEO, Professor, History; B.A., California State University; M.A., Ph.D., University of California, Irvine (1988)
- SHARON M. PITCHER, Associate Professor, Educational Technology and Literacy; B.S., M.S., Towson University; Ed.D., University of Maryland (2001)
- ROBERT A. PITMAN, Associate Professor, Art; B.S., M.Ed., Towson State College; M.F.A., Maryland Institute of Art (1972)
- TOBIN E. PORTERFIELD, Assistant Professor, Management; M.S., University of Baltimore; Ph.D., University of Maryland (2007)
- MARLANA PORTOLANO, Associate Professor, English; B.A., University of St. Thomas; M.A., Ph.D., Catholic University of America (2003)
- JOAN PORTS, Visiting Assistant Professor, Early Childhood Education; B.S., Towson University, M.Ed, Towson University, Ed.D., The Pennsylvania State University (2007)
- KAREN W. POTTASH, Clinical Administrator of Speech-Language, Pathology, Audiology and Deaf Studies; B.S., Towson University; M.A., Case Western Reserve University (1999)
- GARY E. POWELL, Professor, Finance; B.A., University of Akron; M.A., Ph.D., Kent State University (2001)
- KATE POWER, Assistant Professor, Elementary Education; B.A., Northwestern University; M.Ed., University of Illinois at Chicago; Ph.D., University of Illinois at Chicago (2003)
- MARK PROFILI, Director, Forensic Science Program, Chemistry; B.S., Towson State College; M.S., George Washington University
- DOUGLAS PRYOR, Associate Professor and Acting Chair, Sociology, Anthropology and Criminal Justice; B.S., M.A., Northern Arizona University; Ph.D., Indiana University (1988)
- ROBYN QUICK, Associate Professor, Theatre Arts; B.A., Western Maryland College; Ph.D., University of Michigan
- JOAN RABIN, Associate Professor, Psychology; B.A., Queens College; Ph.D., State University of New York at Buffalo (1971)
- SUSAN M. RADIUS, Professor, Health Science; Graduate Program Director, Health Science; A.B., Vassar College; M.Ed.,

- Goucher College; Ph.D., Johns Hopkins University (1981)
- LEA A. RAMSDELL, Assistant Professor, Foreign Languages; B.A., Clarke College; M.A., University of Iowa; M.A., University of Texas at Austin; Ph.D., University of New Mexico (1999)
- ROSEMARY RAPPA, Visiting Professor, Special Education; B.A., University of Maryland; M.S., CASE, John Hopkins University (2004)
- A. SUE RATHBONE, Lecturer, Instructional Leadership and Professional Development; B.A., Boise State University; M.Ed., Towson University; Ed.D., University of Maryland (1998)
- BINA D. RAVAL, Assistant Professor, Psychology; B.A., Bihar University; M.A., Ph.D., Catholic University of America (1969)
- AKIM REINHARDT, Assistant Professor, History; B.A., University of Michigan; M.A., Hunter College; Ph.D., University of Nebraska-Lincoln (2000)
- S. MAGGIE REITZ, Professor and Chair, Occupational Therapy and Occupational Science; Program Director, Post-Professional Master's Degree Program (Sc.D.); B.S., M.S., Towson State University; Ph.D., University of Maryland, College Park (1997)
- REYNALDO REYES, Professor, Music; M. Mus., Santo Tomas University; M.Mus., Peabody Conservatory of Music (1967)
- THOMAS RHOADS, Associate Professor, Economics; B.S., Lebanon Valley College; Ph.D., University of Wyoming (1997)
- MARLENE RILEY, Clinical Associate Professor, Occupational Therapy and Occupational Science; B.S., Towson University; M.M.S., Loyola College (1994)
- JESSICAL RING, Assistant Professor, Art; B.S., M.S., Kent State University (2006)
- CECILIA RIO, Associate Professor, Women's Studies; B.S., Boston College; M.A., Ph.D., University of Massachusetts (2004)
- NICOLE DOMBROWSKI RISSER, Assistant Professor, History; Graduate Program Director, Social Sciences; B.A., University of Wisconsin-Madison; M.A., Ph.D., New York University (1998)
- MARTIN ROBERGE, Associate Professor, Geography and Environmental Planning; B.S., Binghamton University; M.S., University of South Carolina; Ph.D., Arizona State University (1999)
- JAMES C. ROBERTS, Professor and Chair, Political Science; B.A., The Ohio State University; M.A., Ph.D., American University (1989)
- ROLAND ROBERTS, Assistant Professor, Biological Sciences; B.S., M.S., Southwest Texas State University; Ph.D., Louisiana State University (2002)
- KAREN ROBERTSON, Professor, Elementary Education; B.S., M.A., Ohio State University; Ph.D., University of Iowa (1999)
- CANDACE GRAHAM ROBINSON, Clinical Staff, Audiology, Speech-Language, Pathology, Deaf Studies; B.S., M.S., Towson University; Au.D., University of Florida
- DAVID ROBINSON, Lecturer, Reading, Special Education and Instructional Technology; B.A., University of Maryland, Baltimore County; M.S., Towson University
- GERALD D. ROBINSON, Professor, Biological Sciences; B.A., Lock Haven State College; Ph.D., Pennsylvania State University (1977)
- SCOTT N. ROBINSON, Lecturer, Music; B.A., Rutgers University; M.A., Ph.D., Kent State University (2003)
- JUANITA ROCKWELL, Professor, Theatre Arts; B.A., Colorado College; M.F.A., University of Connecticut (1994)
- JORGE ROMERO, Assistant Professor, Computer & Information Sciences; B.S., Pontifical Catholic University of Peru; M.S., Ph.D., University of Texas at Dallas (2005)
- ROBERT E. ROOK, Professor and Chair, History; B.A., Furman University; M.A., Bowling Green State University; Ph.D., Kansas State University (2005)
- RICHARD ROSECKY, Associate Professor, Marketing and E-Business; B.S., Drexel University; Ph.D., University of Maryland (1990)
- DOUGLAS N. ROSS, Associate Professor, Management; B.A. B.Comm., University of Saskatchewan; MBA, University of Denver; Ph.D., University of Colorado (1990)

- DANA ROTH LISBERGER, Professor, Music; Graduate Program Director (Summer), Music Education; B.M.Ed., M.M., East Texas State University; Ph.D., University of Maryland, College Park (1983)
- FRANCES ROTHSTEIN, Professor, Sociology, Anthropology and Criminal Justice; B.A., Queens College; Ph.D., University of Pittsburgh (1974)
- SUSAN J. ROTKOVITZ, Director, Arts Integration Institute; Faculty, Theatre Arts; B.A., University of Maryland, College Park; Second BA, Towson University; M.F.A., Towson University (1995)
- JOSEPH R. RUDOLPH JR., Professor, Political Science; B.A., M.A., Ph.D., University of Virginia (1986)
- PATRICIA RYAN, Assistant Professor, Educational Technology and Literacy; B.S., M.S., Towson University; Ph.D., University of Maryland, College Park (1999)
- MARYANNE SACCO-PETERSON, Lecturer, Occupational Therapy and Occupational Science; B.S., City University of New York; M.S., Ph.D., New York University (1999)
- WILLIAM A. SADERA, Associate Professor, Educational Technology and Literacy; Graduate Program Director, Instructional Technology ED.D.; B.S., City College, City University of New York; M.S., Ph.D., Iowa State University (2000)
- KATIA SAINSON, Assistant Professor, Foreign Languages; B.A., Barnard College; M.A., Ph.D., New York University (1999)
- CODY SANDIFER, Assistant Professor, Physics, Astronomy and Geosciences; B.S., California State University; Chico; M.S., Purdue University; Ph.D., University of California, San Diego and San Diego State University (joint Ph.D., program) (2001)
- DOUGLAS SANFORD, Associate Professor, Management; B.A., Colgate University; M.A., State University of New York, Buffalo; Ph.D., University of Michigan (2000)
- G. REZA SARHANGI, Professor, Mathematics; B.Sc., Pars College, Iran; M.S., Ph.D., Wichita State University (2001)
- JAMES A. SAUNDERS, Professor, Biological Sciences; Director, Molecular Biology, Biochemistry and Bioinformatics; B.A., University of South Florida, Tampa; Ph.D., Miami University (2004)
- STEPHEN J. SATTA, Associate Professor, Theatre Arts; B.F.A., NYU; M.F.A., York University, Toronto, Canada (2000)
- DAVID SCHAEFER, Associate Professor, Physics, Astronomy and Geosciences; B.S., Towson State University; M.S., Ph.D., Purdue University (1995)
- ANDREW SCHIFF, Professor, Accounting; B.A., Colgate University; M.S., State University of New York at Albany; MBA, Ph.D., Rutgers University; CPA, New York (2000)
- CARL B. SCHMIDT, Professor, Music; B.A., Stanford University; M.M., Ph.D., Harvard University (1994)
- CHRISTA K. SCHMIDT, Assistant Professor, Psychology; B.A., University of Maryland, College Park; M.A., Ph.D., University of Missouri (2009)
- CHARLES SCHMITZ, Associate Professor, Geography and Environmental Planning; B.S., M.A., Ph.D., University of California at Berkeley (1999)
- JENNIFER E. SCOTT, Assistant Professor and Fisher Endowed Chair, Physics, Astronomy and Geosciences; B.S., University of North Carolina at Chapel Hill; Ph.D., University of Arizona (2006)
- RALPH SCOTT, Professor, Geography and Environmental Planning; B.S., M.S., Florida State University; Ph.D., University of Georgia (1974)
- ERIK P. SCULLY, Professor, Biological Sciences; B.S., Fordham University; Ph.D., University of Rhode Island (1978)
- MIRIAM SEALOCK, Assistant Professor, Sociology, Anthropology and Criminal Justice; B.A., M.A., Ph.D., University of Maryland, College Park. (2000)
- RICHARD A. SEIGEL, Professor and Chair, Biological Sciences; B.A., Rutgers University; M.S., University of Central Florida; Ph.D., University of Kansas (2001)
- JACK SHEPARD, Assistant Professor, Biology, B.S., Ph.D., University of Oklahoma (2005)
- ANDREA SHERWIN, Assistant Professor, Occupational Therapy and Occupational Science; B.A., Tufts University; M.S., M.

- Phil, Ed.M, Ph.D., Columbia University (2005)
- VONNIE D. SHIELDS, Associate Professor, Biological Sciences; B.Sc., Ph.D., University of Regina (2000)
- NANCY SHELTON, Assistant Professor, Elementary Education; B.A., State University of New York, Albany; M.A., Ph.D., University of Florida (2003)
- KIM SHIFREN, Associate Professor, Psychology; B.A., University of Maryland, Baltimore County; M.A., Ph.D., Syracuse University (1998)
- LAWRENCE H. SHIRLEY, Associate Dean, College of Graduate Studies and Research; Professor, Mathematics; B.S., California Institute of Technology; M.Ed., University of Illinois; Ph.D., Ahmadu Bello University, Nigeria (1989)
- FELICE SHORE, Assistant Professor, Mathematics; B.S., M.A.T., Cornell University; Ph.D., University of Maryland, College Park (2004)
- LINDA SUE SICKMAN, Assistant Professor, Audiology, Speech-Language Pathology and Deaf Studies; B.A., Butler University; M.A., Ball State University; Ph.D., University of Cincinnati (2007)
- MARTHA SIEGEL, Professor, Mathematics; B.A., Russell Sage College; M.A., Ph.D., University of Rochester (1971)
- ERIK P. SILLDORFF, Associate Professor, Biological Sciences; B.A., Ph.D., University of Delaware (1998)
- COLLEEN SINCLAIR, Assistant Professor, Biological Sciences; B.E., University of Dayton; M.S., Oklahoma State University; Ph.D., Mayo Graduate School (2002)
- DANIEL D. SINGER, Professor, Finance; B.S., Rider College; M.S., State University of New York; Ph.D., University of Colorado (1990)
- JAN SINNOTT, Professor, Psychology; B.S., St. Louis University; M.A., Ph.D., The Catholic University (1978)
- R. JASON SLOAN, Lecturer, Art; B.F.A., Edinboro University of Pennsylvania; M.F.A., Towson University (2000)
- JOEL SLOTKIN, Assistant Professor, English; B.A., Yale University; Ph.D., University of California, Berkeley (2006)
- DIANE SMITH-SADAK, Associate Professor, Theatre Arts; B.A., Union College; M.F.A., Florida State University (1989)
- JAMES M. SMITH, Assistant Professor, Geography and Environmental Planning; Graduate Program Director, Professional Studies; B.S., M.A., Towson University; Ph.D., Kent State University (2005)
- VERA SMOLYANINOVA, Assistant Professor, Physics, Astronomy and Geosciences; M.Sc., Diploma in Physics and Engineering, Physics and Technology, Russia; Ph.D., University of Maryland, College Park (2002)
- JOEL W. SNODGRASS, Associate Professor, Biological Sciences; Graduate Program Director, Biology; B.S., Guilford College; M.S., University of Central Florida; Ph.D., University of Georgia (1999)
- MICHELLE SNYDER, Assistant Professor, Biological Sciences; B.S., Calvin College; Ph.D., Northwestern University (2007)
- LIVAN SONG, Assistant Professor, Reading, Special Education and Instructional Technology; B.A., Beijing Institute of Light; M. Ed., Ph.D., University of Georgia (2005)
- YEONG-TAE SONG, Assistant Professor, Computer and Information Sciences; B.S., Hanyang University; M.S., Ph.D., University of Texas at Dallas (2001)
- TATYANA SOROKINA, Assistant Professor, Mathematics; Ph.D., Vanderbilt University (2007).
- CHRISTOPHER H. SPICER, Dean, College of Fine Arts and Communication; B.A., University of Virginia; M.A., Ph.D., University of Texas at Austin (2003)
- RAJESHWAR P. SRIVASTAVA, Professor, Computer and Information Sciences; M.S.C., Allahabad University, India; M. Math., University of Waterloo; Ph.D., University of Idaho (1986)
- ALLAIRE STALLSMITH, Assistant Professor, History; B.A., Barnard College; M.A., Columbia University; Ph.D., University of Pennsylvania (1999)
- ALLAN E. STARKEY, Visiting Instructor, Secondary Education; B.S., Towson University; M.S., Morgan State University; M.A., Johns Hopkins University (2000)
- WENDY STAU, Assistant Professor, Department of Occupational Therapy and Occupa-

- tional Science; B.S., Quinnipiac University; Ph.D., Nova Southeastern University (2002)
- BARBARA M. STEELE, Lecturer, Early Childhood Education; B.A., M.E.d, Towson University (2004)
- ERIN STEFFES, Assistant Professor, Marketing; B.B.A., College of William and Mary; MBA, Ph.D., University of Texas
- STUART STEIN, Associate Professor, Art; B.S., Towson State University; M.F.A., Maryland Institute College of Art (1996)
- REGENA G. STEVENS-RATCHFORD, Professor, Occupational Therapy and Occupational Science; B.S., M.S., Ohio State University; Ph.D., University of Maryland, College Park (1980)
- ALEX D. STORRS, Associate Professor, Physics, Astronomy and Geosciences; B.S., Massachusetts Institute of Technology; M.S., Ph.D., University of Hawaii (2000)
- ROBERTA A. STROSNIDER, Professor, Reading, Special Education and Instructional Technology; B.A., Fairmont State College; M.A., West Virginia University; Ed.D., Virginia Polytechnic Institute (2001)
- RODNEY L. STUMP, Associate Professor and Chair, Marketing and e-Business; B.A., Temple University; B.S., York College of Pennsylvania; Ph.D., Case Western Reserve University (2004)
- NORA STURGES, Associate Professor, Art; B.A. Bowdoin College; M.F.A., Ohio University (1999)
- BRIDGET Z. SULLIVAN, Associate Professor, Art; Director, Interactive Media Design; B.F.A., Maryland Institute College of Art; M.F.A., Towson University (1997)
- WEI SUN, Professor, Mathematics; Graduate Program Director, Mathematics Education; B.S., Northeast Normal University; M.A., M.Ed., Ed.D., Columbia University (1996)
- LISA SWANSON, Assistant Professor, Kinesiology; B.A., St. Mary's College of Maryland; M.A., University of North Carolina; Ph.D., University of Maryland, College Park (2003)
- PRECHA THAVIKULWAT, Professor, Management; B.S., Ph.D., University of Minnesota (1988)
- PAPORN THEBPANYA, Assistant Professor, Geography; B.A., Chulalongkorn University, Bangkok; M.A., Ph.D., University of Georgia (2005)
- RONALD S. THOMAS, Lecturer, Instructional Leadership and Professional Development; B.S., M.Ed., Towson University; Ph.D., University of Maryland (2001)
- VIRGINIA THOMPSON, Associate Professor, Geography and Environmental Planning; Graduate Program Director, Geography and Environmental Planning; B.A., M.A., University of Missouri; Ph.D., University of Oklahoma (1995)
- ALIX TIMKO, Assistant Professor, Psychology; B.S., St. Lawrence University; Ph.D., Drexel University (2007)
- MING TOMAYKO, Assistant Professor, Mathematics; B.A., Washington University in St. Louis; M.Ed., Ph.D., University of Maryland, College Park
- WILLIAM TSITSOS, Assistant Professor, Sociology, Anthropology & Criminal Justice; B.A., Wesleyan University; M.A., and Ph.D., University of Arizona
- TABATHA UHRICH, Assistant Professor, Kinesiology; B.S., Virginia Commonwealth University; M.E., Pennsylvania State University; Ph.D., Temple University (2002)
- ELIZABETH VAIDYA, Assistant Professor, Biology; B.A. Transylvania University, Ph.D., University of Cincinnati (2008)
- DAVID A. VANKO, Professor and Acting Dean, Fisher College of Science and Mathematics; B.A., M.A., Johns Hopkins University; Ph.D., Northwestern University (2001)
- RICHARD E. VATZ, Professor, Mass Communication and Communication Studies; B.A., M.A., Ph.D., University of Pittsburgh (1974)
- ALEXANDER VIGO, Assistant Professor, Kinesiology; B.A., M.A., University of Puerto Rico; Ph.D., Ohio State University (2008)
- ALEXANDRA M. VILELA, Assistant Professor, Mass Communication & Communication Studies; B.A., MBA, Universidade Federal de Minas Gerais; M.A., Michigan State University; Ph.D., University of Wisconsin-Madison. (2006)

- DAVID E. VOCKE, Professor, Secondary Education; B.S., M.S., Miami University; Ph.D., University of Iowa (1989)
- MIRCEA VOISEI, Assistant Professor, Mathematics; B.S., University of Iasi; Ph.D., Ohio University (2007)
- DONNA WAGNER, Professor and Director of Gerontology; Graduate Program Director, Applied Gerontology; B.S., M.S., Ph.D., Portland State University (1997)
- ROBERT D. WALL, Lecturer, Sociology, Anthropology & Criminal Justice, B.A., University of Maryland M.A., Ph.D., The Catholic University of America (1993)
- XIAOYIN WANG, Associate Professor, Mathematics; B.A., East China Normal University; Ph.D., University of Missouri-Columbia (2002)
- YUANQIONG WANG, Assistant Professor, Computer and Information Sciences; M.S., Ph.D., New Jersey Institute of Technology. (2004)
- ESTHER WANGARI, Associate Professor, Women's Studies; B.A., Warren Wilson College; M.A., Ph.D., The New School for Social Research (1996)
- OCIE WATSON-THOMPSON, Associate Professor and Chair, Early Childhood Education; B.S., M.S., Ed.D., University of Alabama (1991)
- JOY WATTS, Assistant Professor and Fisher Endowed Chair, Biological Sciences; B.S., Liverpool John Moores University; Ph.D., University of Warwick (2004)
- DANIEL PAUL WEBSTER, Assistant Professor, Physician Assistant Program; B.S., University of Maryland, University College; M.S., Franklin University; Ph.D., University of Maryland (2005)
- JOHN W. WEBSTER, Associate Professor, Psychology; A.B., Ed.M., Ed.D., Rutgers University; Ph.D., University of Maryland (2005)
- JUDY WEBSTER, Lecturer, Special Education; B.A., Michigan State University; M. Ed., Wayne State University; M.A., Trinity College (2000)
- MARCIE WEINSTEIN, Associate Dean, College of Health Professions; Graduate Program Director, Physician Assistant Studies and the Clinician-Administrator Transition Program; B.S., University of Kansas; MBA, University of Baltimore; Ph.D., University of Maryland, Baltimore County (2002)
- DEITRA WENGERT, Professor, Health Science; B.S., Bowie State College; M.Ed., Towson University; Ph.D., University of Maryland (1979)
- NIYA WERTS, Assistant Professor, Helath Science; B.S., University of Maryland; M.S., Miami University of Ohio, M.S., Ph.d., University of Maryland (2008)
- EDYTH J. WHEELER, Professor, Early Childhood Education; Graduate Program Director, Early Childhood Education; B.A., Duke University; M.Ed., Ph.D., George Mason University (1996)
- EVANGELINE A. WHEELER, Associate Professor, Psychology; B.S., Howard University; Ph.D., University of California at Berkeley (1994)
- ALEXANDER L. WIJESINHA, Associate Professor, Computer and Information Sciences; M.S., University of Florida; Ph.D., University of Maryland, Baltimore County (1996)
- PATRICIA HRUSA WILLIAMS, Assistant Professor, Family Studies and Community Development; B.A., University of Rochester; Ph.D., Tufts University (2007)
- GRAN WILSON, Lecturer, Music, MM, Indiana University; BM, Sanford University
- LAWRENCE E. WIMMERS, Associate Professor, Biological Sciences; B.S., University of Dayton; Ph.D., Cornell University (1995)
- DAVID R. WIZER, Professor and Chair, Educational Technology and Literacy; B.A., Rider College; M.A., Ph.D., University of Maryland (1997)
- JANE L. WOLFSON, Professor, Biological Sciences; B.A., Cornell University; Ph.D., State University of New York at Stony Brook (1998)
- CHERYL WOOD, Lecturer, Reading, Special Education and Instructional Technology; B.A., V.P.I., M.S., Towson University (1999)
- DONN WORGs, Assistant Professor, Political Science; B.A., Lehigh University; M.A., Uni-

versity of Delaware; Ph.D., University of Maryland

TAMARA M. WOROBY, Professor, Economics; B.A., University of Saskatchewan, Ph.D., Queen's University (1979)

JENNA YEAGER, Professor, Occupational Therapy and Occupational Science; B.S., M.A., Towson University; Ph.D., University of Maryland, College Park (1994)

CYNTHIA ZELLER, Assistant Professor, Chemistry; B.A., Hood College; Ph.D., University of Alabama Birmingham.

H. HARRY ZHOU, Professor, Computer and Information Sciences; M.S., Ph.D., Vanderbilt University (1989)

MARIUS ZIMAND, Associate Professor, Computer and Information Sciences; Ph.D., University of Bucharest; Ph.D., University of Rochester.

JAY J. ZIMMERMAN, Professor, Mathematics; B.A., Knox College; M.S., Ph.D., University of Illinois (1989)

SALVATORE M. ZUMBO, Professor and Chair, Foreign Languages; B.A., M.A., University of Akron; Ph.D., University of Arizona (1989)

STANLEY ZWEBACK, Associate Professor, Psychology; B.A., The College of New Jersey; M.Ed., Rutgers University; Ph.D., University of Maryland (1970)



Appendix A

CAMPUS FACILITIES

Academic Buildings

STEPHENS HALL - This distinctive Jacobean building, constructed in 1914, has long been a landmark in the Baltimore area. Departmental and faculty offices as well as classrooms and laboratories of the College of Business and Economics and the Honors College are housed in this building. A 733-seat theater capable of supporting light opera and musicals is also located in Stephens Hall.

VAN BOKKELEN HALL - A classroom building for the departments of Communication Sciences and Disorders and Mass Communication and Communication Studies, this facility contains therapy rooms for speech-language pathology and audiology majors, as well as a production studio for rehearsing radio and television broadcasts.

LINTHICUM HALL - One of the largest classroom buildings on campus, it houses the departments of English; Modern Languages; History; Philosophy and Religious Studies; Geography and Environmental Planning; Sociology, Anthropology and Criminal Justice; Political Science, Women's Studies and associated offices.

SMITH HALL - First occupied in 1965, the building was expanded in 1976 to 223,285 square feet to house the departments of Biological Sciences; Chemistry; and Physics, Astronomy and Geosciences. Included are a state-of-the-art Nanotechnology Center, plant growth chambers, greenhouses, reach-in environmental chambers, an aquarium room with an aquatron, and controlled environmental animal rooms, in addition to various classrooms and class laboratories. The Watson-King Planetarium is on the top floor.

BURDICK HALL - Completed in 1968, it houses the departments of Nursing and Health Science. It contains a fitness center, facilities for intramural sports, an Olympic-sized swimming pool, classrooms and gymnasiums.

TOWSON SPORTS COMPLEX - The 24-acre sports complex includes the Towson Center Arena, the 11,000-seat Johnny Unitas Stadium, Minnegan Field, tennis courts with lighting, and separate fields for football, lacrosse, soccer, field hockey and softball. The Towson Center Arena seats 5,000 people for athletic events, concerts and lectures. The Kinesiology and Athletics departments are located in the Towson Center. The building also has classrooms, a research laboratory, a curriculum center, student and faculty lounges, indoor archery and golf ranges, weight rooms, training areas and facilities, fencing, wrestling and gymnastic rooms, open teaching areas, locker rooms, team rooms, a fitness center, handball courts and squash courts.

ALBERT S. COOK LIBRARY - Built in 1969, the five-story library contains more than 570,000 volumes, 840,000 microform units, and more than 5,600 periodical subscriptions. The Learning Commons on the library's main floor provides 170 computer work stations as well as nine group study areas, each equipped with computers for collaborative work. The Computing Services Help Center is located on the ground floor.

MEDIA CENTER - This building houses the campus radio station, XTSR-FM, the campus TV station, WMJF-TV, the English Language Center and radio and TV production labs.

CENTER FOR THE ARTS - Renovated in 2005, this building houses the departments of Art, Dance, Music and Theatre Arts, as well as a main stage theatre, two studio theatres, the Harold J. Kaplan Concert Hall, the Holtzman Art Gallery, an MFA Gallery, a dance studio theatre and the Asian Arts and Culture Center, which displays the university's extensive Asian art collection.

HAWKINS HALL - Part of a three-building complex, it houses the Elementary, Secondary and Early Childhood Education departments, as well as the departments of Educational Technology and Literacy, Special Education, and Instructional Leadership and Professional Development Named for former president Earle T. Hawkins, it also houses the Education Technology Center.

PSYCHOLOGY BUILDING - Part of the three-building complex that contains Hawkins Hall, it houses the Department of Psychology, learning laboratories, animal laboratories, and statistics laboratories.

LECTURE HALL - Part of the three-building complex that contains Hawkins Hall and the Psychology Building, it houses the Academic Advising Center.

Other Buildings

UNIVERSITY UNION - The three-story University Union is the social hub of the campus. Educational, cultural and social programs at the Union are designed to appeal to the entire campus community. The Union's services and facilities include: a full-service post office, the University Store, the Ticket Office, Cash Office, Auxiliary Services Business Office, Paws Cyber Cafe, Art Services, Auxiliary Services administrative offices, a full-service bank and two ATMs, dining facilities, SGA offices, Information Desk, Event and Conferences Services, Student Activities, Campus Ministries, Women's Center, an art gallery, the African American Cultural Center, Orientation and New Student Programs, SAGE, The Towerlight student newspaper office, and Tiger Reels video rental.

ADMINISTRATION BUILDING - Located at 7720 York Road, this building houses most of the executive and administrative offices of the university.

7800 YORK ROAD - This building is the home of the College of Graduate Studies and Research. It also houses the Career Center, the Department of Computer and Information Sciences, the Department of Mathematics, the Center for Geographic Information Services, and other facilities.

DOWELL HEALTH CENTER - The Dowell Health Center is an outpatient primary health care clinic with an experienced staff of physicians, nurse practitioners, physician's assistants, nurses and health educators. All registered students, including parttime and graduate students, are eligible to use health center services.

ENROLLMENT SERVICES CENTER - This building houses student services including Admissions, Office of the Registrar, Financial Aid, the Bursar's Office, and the Department of Occupational Therapy and Occupational Science.

THE BURKSHIRE AT TOWSON UNIVERSITY - Adjacent to campus is an 18-story apartment community for upper-level undergraduate and graduate students.

GLEN ESK - The Counseling Center, which provides a variety of counseling and psychological services to students, faculty and staff, is housed here.

Appendix B

THE FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA, BUCKLEY AMENDMENT)

The Family Educational Rights and Privacy Act of 1974, as revised, is a federal law requiring the institution to maintain the confidentiality of student educational records. This law states that a) a written institutional policy must be established and b) a statement of adopted procedures covering the privacy of students be made available. The university has taken the appropriate steps to comply with this law.

Towson University accords all the rights under the law to students who have reached the age of majority. Information may be released to parents who have established students' dependency as defined by the Internal Revenue Code of 1954, Section 152. The Office of the Registrar will review the parent's claim of dependency and notify students of the claim prior to release of any academic information. Except as permitted under the Act, no one outside the institution will have access to any information from students' education records without their written consent. Those permitted access under the Act include personnel within the institution, officials of other institutions in which students seek to enroll, persons or organizations providing financial aid, accrediting agencies, persons in compli-

ance with a judicial order, and persons acting in an emergency situation to protect the health or safety of others.

Within the Towson University community, only those individuals acting in students' educational interest are allowed access to student education records. These include personnel in the offices of Admissions, Academic Advising, Office of the Registrar, Bursar, Financial Aid, and other academic personnel within the limitations of their need to know. The director of Enrollment Services may grant access to education records for other legitimate reasons permitted under the Act.

The university may provide Directory Information in accordance with the provisions of the Act without the written consent of students. Directory Information includes student name, address, telephone number(s), date and country of birth and country of citizenship, major field of study, dates of attendance, degrees and awards received, the most recent previous educational institution attended by students, participation in officially recognized activities and sports, and the weight and height of members of athletic teams. The Office of the Registrar will release Directory Information at its discretion and may release it over the telephone or in writing. Students may withhold Directory Information by notifying the Office of the Registrar in writing within two weeks after the first day of classes.

Requests for non-disclosure will be honored for only one academic year; thereafter, authorization to withhold Directory Information must be filed annually with the Registrar.

The Act also provides students with the right to inspect and review information contained in their education records. The Registrar at Towson University has been designated to coordinate the inspection and review of student education records. Students wishing to review their education records must make written requests to the Records Office. Records covered by the Act will be made available within 30 days of the request. Students may have copies made of their records at their expense with certain exceptions (e.g., copies of the original or source document that exists elsewhere or when students have an outstand-

ing financial obligation to the university). Education records do not necessarily include records of instructional, administrative, or educational personnel, which are the sole possession of the makers. Health records, employment records, or alumni records will not be released to students but may be reviewed by them or by physicians of their choosing.

FERPA does not allow students to inspect and review the following: financial information submitted by their parents, confidential letters and recommendations associated with admissions, employment or job placement, or honors to which they have waived their rights of inspection and review. Education records containing information about more than one student are restricted, and the institution will permit access only to that part of the records that pertains to the individual student. The institution will not permit students to inspect and review confidential letters and recommendations placed in their files prior to January 1, 1975.

The university has established an appeal mechanism in accordance with the Act. Students who believe their education records contain inaccurate, misleading, or unlawful information may discuss their problems informally with the Registrar. If the Registrar agrees with the request, the appropriate records will be amended. If students' requests are denied, they will be notified by the director of the right to a formal hearing.

Requests for formal hearings must be made in writing to the vice president for Student Affairs and associate provost, who will inform students of the date, place and time of the hearing. Students may present evidence and may be assisted or represented at the hearings by counsel. The hearing panel that will adjudicate such challenges may include the vice president for Academic Affairs, the vice president for Student Affairs and associate provost, the dean of the Graduate School, and the academic dean of students' colleges, or their designees. Decisions of the hearing panel will be final. The findings will be based solely on the evidence presented at the hearing and will consist of written statements summarizing the evidence and stating the reasons for the deci-

sions, and will be delivered to all parties concerned. The education records will be corrected or amended in accordance with the decisions of the hearing panel. Students dissatisfied with the outcome of their hearings may prepare a written statement to be placed in the education records and maintained as part of students' records.

Students who believe the adjudications of the challenges were unfair or not in keeping with the provisions of FERPA may request that the hearing be reviewed by the president of the university. In addition, students who believe their rights have been abridged may file complaints with The Family Educational Rights and Privacy Act office (FERPA), Department of Health, Education, and Welfare, Washington, D.C. 20201, concerning the alleged failures of Towson University to comply with the Act.

Revisions and clarifications of this policy will be published as the law warrants.

Appendix C

RESIDENCY POLICY

Policy on Student Classification for Admission, Tuition and Charge-Differential Purposes.

(Approved by the Board of Regents August 28, 1990; Amended July 10, 1998; Amended November 27, 2000; Amended April 11, 2003; Amended February 15, 2008)

I. POLICY

A. Purpose

To extend the benefits of its system of higher education while encouraging the economical use of the State's resources,¹ it is the policy of the Board of Regents of the University System of Maryland (USM) to recognize the tuition categories of in-state and out-of-state students for the purpose of admission and assessing tuition at USM institutions.

B. Burden of Proof

The person seeking in-state status shall have the burden of proving by clear and convincing evidence that he or she satisfies the require-

ments and standards set forth in this Policy. Assignment of in-state or out-of-state status will be made by the applicable USM institution upon a review of the totality of facts known or presented to it.

C. In-state Status

To qualify for in-state tuition, a student must demonstrate that, for at least twelve (12) consecutive months immediately prior to and including the last date available to register for courses in the semester/term for which the student seeks in-state tuition status, the student had the continuous intent to:

1. Make Maryland his or her permanent home; and
 2. Abandon his or her former home state; and
 3. Reside in Maryland indefinitely; and
 4. Reside in Maryland primarily for a purpose other than that of attending an educational institution in Maryland.
- Satisfying all of the requirements in Section II (and Section III, when applicable) of this policy demonstrates continuous intent and qualifies a student for in-state tuition. Students not entitled to in-state status under this policy shall be assigned out-of-state status for admission and tuition purposes.

D. Presumption

Either of the following circumstances raises a presumption that the student is residing in the State of Maryland primarily for the purpose of attending an educational institution and therefore, does not qualify for in-state status under this policy:

1. A student is attending school or living outside Maryland at the time of application for admission to a USM institution, or
2. A student is Financially Dependent on a person who is not a resident of Maryland.

This presumption may be rebutted. The student bears the burden of rebutting the presumption. See "III. Rebuttal Evidence" below.

II. REQUIREMENTS

Before a request for classification to in-state status will be considered, a student must comply with all of the following requirements for a period of at least twelve (12) consecutive months immediately prior to and including the last date available to register for courses in the semester/term for which the student seeks in-state tuition status. The student must demonstrate he or she:

- A. Owns or possesses, and has continuously occupied, including during weekends, breaks and vacations, living quarters in Maryland. The student must provide evidence of a genuine deed or lease and documentation of rent payments made. In lieu of a deed or lease, a notarized affidavit from a landlord showing the address, name of the student as occupant, term of residence, and history of rent payments made will be considered. As an alternative, a student may demonstrate that he or she shares living quarters in Maryland which are owned or rented and occupied by a parent, legal guardian or spouse.
- B. Has substantially all of his or her personal property, such as household effects, furniture and pets in Maryland.
- C. Has paid Maryland income tax on all taxable income including all taxable income earned outside the State and has filed a Maryland tax return.
- D. Has registered all owned or leased motor vehicles in Maryland.
- E. Possesses a valid Maryland driver's license, if licensed.
- F. Is registered to vote in Maryland, if registered to vote.
- G. Receives no public assistance from a state other than the State of Maryland or from a city, county or municipal agency other than one in Maryland.
- H. Has a legal ability under Federal and Maryland law to live permanently without interruption in Maryland.
- I. Has rebutted the presumption that he or she is in Maryland primarily to attend an educational institution, if the student's circumstances have raised the presumption.

III. REBUTTAL EVIDENCE

Satisfying the requirements listed in paragraphs A through I of Section II, does not rebut the presumption that a student is in Maryland primarily to attend an educational institution. To overcome the presumption, a student must present additional evidence.

To determine a student's intent, the University will evaluate evidence of a student's objectively verifiable conduct. Evidence that does not document a period of at least twelve (12) consecutive months immediately prior to and including the last date available to register for courses in the semester/term for which the student seeks in-state tuition status is generally considered an unfavorable factor under this policy. Evidence of intent must be clear and convincing and will be evaluated not only by the amount presented but also based upon the reliability, authenticity, credibility and relevance of the evidence.

The absence of objective, relevant evidence is generally considered an unfavorable factor. A student's statement of intent to remain in Maryland in the future is generally not considered to be objective evidence under this policy.

Additional evidence that will be considered includes, but is not limited to, the following:

- A. Source of financial support:
 1. Maryland employment and earnings history through sources beyond those incident to enrollment as a student in an educational institution e.g., beyond support provided by work study, scholarships, grants, stipends, aid, student loans, etc. (Tuition costs will be considered as a student expense only to the extent tuition exceeds the amount of any educational scholarships, grants, student loans, etc.), or
 2. Evidence the student is Financially Dependent upon a person who is a resident of Maryland.
- B. Substantial participation as a member of a professional, social, community, civic, political, athletic or religious organization in Maryland, including professionally related school activities that demonstrate a commitment to the student's community or

to the State of Maryland.

- C. Registration as a Maryland resident with the Selective Service, if male.
- D. Evidence showing the student uses his or her Maryland address as his or her sole address of record for all purposes including on health and auto insurance records, bank accounts, tax records, loan and scholarship records, school records, military records, leases, etc.
- E. An affidavit from a person unrelated to the student that provides objective, relevant evidence of a student's conduct demonstrating the student's intent to live permanently in Maryland.

IV. NON-RESIDENTS WHO MAY TEMPORARILY QUALIFY FOR IN-STATE STATUS

In addition, persons with the following status shall be accorded the benefits of in-state status for the period in which they hold such status:

- A. A full-time or part-time (at least 50 percent time) regular employee of USM or a USM institution.
- B. The spouse or Financially Dependent child of a full-time or part-time (at least 50 percent time) regular employee of USM or a USM institution.
- C. A full-time active member of the Armed Forces of the United States whose home of record is Maryland or one who resides or is stationed in Maryland, or the spouse or a Financially Dependent child of such a person. Students that qualify under this provision will retain in-state status for tuition purposes as long as they are Continuously Enrolled regardless of a change in military assignment or status of the active member of the military.
- D. A veteran of the United States Armed Forces with an honorable discharge who, within one year of discharge, presents documentation that he or she attended a secondary school in the State for at least three years, and graduated or received the equivalent of a high school diploma from a secondary school in the State. The veteran must present documentation and register at a USM institution within one year of dis-

charge for this provision to apply.

- E. For UMUC, a full-time active member of the Armed Forces of the United States on active duty, or the spouse of a member of the Armed Forces of the United States on active duty.
- F. A graduate assistant appointed through a USM institution for the semester/term of the appointment. Except through prior arrangement, this benefit is available only for enrollment at the institution awarding the assistantship.

V. PROCEDURES

- A. An initial determination of in-state status will be made at the time of admission. The determination made at that time, and any determination made thereafter, shall prevail for each semester/term until the determination is successfully challenged in a timely manner.
- B. A change in status must be requested by submitting a USM institution's "Petition for Change in Classification for Tuition". A student applying for a change to in-state status must furnish all evidence that the student wishes the USM institution to consider at the time the petition is due. The due date is based on the deadline set forth by the USM institution at which the student seeks to enroll. If the applicable USM institution has no such deadline, the due date is the last published date to register for the forthcoming semester/term for which the change in classification is sought.
- C. The student shall notify the USM institution in writing within fifteen (15) days of any change in circumstances which may alter in-state status.
- D. In the event incomplete, false, or misleading information is presented, the USM institution may, at its discretion, revoke in-state status and take disciplinary action provided for by the institution's policy. Such action may include suspension or expulsion. If in-state status is gained due to false or misleading information, the institution reserves the right to retroactively assess all out-of-state charges for each semester/term affected.

- E. Each USM institution shall develop and publish additional procedures to implement this Policy. Procedures shall provide that on request the institution President or designee has the authority to waive any requirement set forth in Section II if it is determined that the application of the requirements creates an unjust result. These procedures shall be filed with the Office of the Chancellor.

VI. DEFINITIONS

- A. Financially Dependent: For the purposes of this policy, a financially dependent student is one who is claimed as a dependent for tax purposes.
- B. Parent: A parent may be a natural parent, or, if established by a court order recognized under the law of the State of Maryland, an adoptive parent.
- C. Guardian: A guardian is a person so appointed by a court order recognized under the law of the State of Maryland.
- D. Spouse: A spouse is a partner in a legally contracted marriage.
- E. Child: A child is a natural child or a child legally adopted pursuant to a court order recognized under the law of Maryland.
- F. Regular Employee: A regular employee is a person employed by USM or a USM institution who is assigned to a State budget line or who is otherwise eligible to enroll in a State retirement system. Examples of categories NOT considered regular employees are graduate students, contingent employees, and independent contractors.
- G. Continuous Enrollment:
1. Undergraduate Student - An undergraduate student who is enrolled at a USM institution for consecutive fall and spring semesters, until completion of the student's current degree program or unless on an approved leave of absence or participating in an approved program off-campus.
 2. Graduate and Professional - Continuous enrollment for a graduate or professional student is defined by the institution in accordance with program requirement.

VI. IMPLEMENTATION

This policy as amended by the Board of Regents on February 15, 2008 shall be applied to all student tuition classification decisions made on or after this date.

Appendix D

CODE OF CONDUCT

I. Students Rights and Responsibilities

A. Preamble

Academic institutions exist for the transmission of knowledge, the pursuit of truth, the development of students, and the general well being of society. Free inquiry and free expression are indispensable to the attainment of these goals. As members of the academic community, students should be encouraged to develop the capacity for critical judgment and to engage in a sustained and independent search for truth. Freedom to teach and freedom to learn are inseparable facets of academic freedom. The freedom to learn depends upon appropriate opportunities and conditions in the classroom, on the campus, and in the larger community. Students should exercise their freedom with responsibility. The responsibility to secure and respect general conditions conducive to the freedom to learn is shared by all members of the community. The present code is designed to establish policies and procedures which provide and safeguard this freedom.

B. Purpose

Towson University's mission to the community at large is one of academic excellence and achievement. To that end, its campus community must be one wherein respect for the individual pursuit of academic excellence and achievement is given priority. In order to foster this environment, it is incumbent upon students to conduct themselves within the framework of the reasonable rules and regulations designed to enhance and protect the academic environment of the university. By specifying behavioral standards and by establishing fair

and efficient processes for adjudicating conflict, the university seeks to protect the environment in which learning is nurtured and respect for that goal is continually afforded.

C. Individual Rights and Responsibilities?

1. Access to higher education

a. Within the limits of its facilities, the institution and its courses, programs and activities shall be open to all applicants who are qualified, according to its admission requirements.

1) The institution shall, in the catalogs, make clear to the students the standards of its programs.

2) Admission to Towson University shall be in compliance with federal and state laws and regulations that prohibit illegal discrimination.

2. Classroom Expression

a. Discussion and expression of all views relevant to the subject matter are permitted in the classroom, subject only to the responsibility of the instructor to maintain order and reasonable academic progress.

1) Faculty comportment shall be in accordance with standards set forth by the American Association of University Professors.

2) Students shall not be penalized for expressing controversial views relevant to the subject matter in class.

b. Evaluation of a student's academic performance shall be neither prejudiced nor capricious.

3. Personal Expression

a. Discussion and expression of all views is permitted within the institution subject only to requirements for the maintenance of order. Support of any cause, by orderly means, which does not disrupt the operation of the institution, is permitted.

b. Students, groups and campus organizations may invite to hear any persons of their own choosing, subject only to the requirements of the use of institutional facilities and regulations of the university, and the Board of Regents of the University System of Maryland.

c. Students' dress and grooming, of any style, are permitted subject to legal prohibitions.

d. Students, groups or organizations may distribute written material on campus, providing such distribution does not disrupt the operations of the institution or deface property and adheres to the Advertising Policy and/or the Distribution and Solicitation Policy, which is available at the University Union, Information Desk (410-704-4636).

e. The right of assembly is granted within the institutional community. The institution retains the right to assure the safety of individuals, the protection of property, and the continuity of the educational process.

f. Orderly picketing and other forms of peaceful protest are permitted on institutional premises. Interference with entrances to institutional facilities, intentional interruption of classes, or damage to property exceeds permissible limits.

g. Orderly picketing and orderly demonstrations are permitted in public areas within institutional buildings subject to the requirements of non-interference.

h. Every student has the option to be interviewed on campus by an organization authorized to recruit at the institution.

4. Privacy

a. Students have the same rights of privacy as any other citizens and surrender none of those rights by becoming members of the academic community.

b. Information about student views, beliefs and political associations acquired by faculty and staff in the course of their work as instructors, advisers and counselors is confidential and is not to be disclosed to others unless under legal compulsion or with permission of the student.

c. The privacy and confidentiality of all student records shall be preserved. Official student academic records, supporting documents, and other student files shall be maintained only by fulltime members of the institution's staff employed for that purpose and students employed by them who may have access in line of employment. Separate files shall be maintained for the following: academic records, supporting documents and general educational records, records of disciplinary proceedings, medical and psychiatric

records, and financial aid records.

d. No entry may be made on a student's academic record and no document may be placed in the student's file without actual notice to the student.

e. Every student is guaranteed the right to inspect and review all information in his or her own files maintained by the Office of Judicial Affairs, subject only to reasonable regulations as to time, place and supervision. However, the student may not have copies of items in a file.

1) A student may challenge the accuracy or presence of any item by following the standard appeal process (see Appeal Procedures below).

2) When a case is referred, a disciplinary file may be developed in the name of the charged student.

3) The file will be voided if the charges against the student are not substantiated.

4) The file will be retained for seven years if the charges are substantiated. Disciplinary records may be retained for longer periods of time or permanently if the sanction is suspension or expulsion from the university or university housing.

5) Any record, file or incident report to which the student has access and an opportunity to respond, or records of previous hearings, may be taken into consideration by the decision-maker in arriving at an appropriate decision.

6) Pursuant to recent changes in the Family Educational Rights and Privacy Act of 1974, as revised, the Office of Judicial Affairs reserves the right to notify parents of students under the age of 21 who are found responsible for alcohol or drug violations of the Code of Student Conduct.

f. No record may be made in relation to any of the following matters except upon the express written request of the student: religion, political or social views, and membership in any organization other than honorary and professional organizations directly related to the educational process.

g. Agencies of the university which keep student records must make students aware of

how and to whom those records may be divulged. No information in any student file may be released to anyone except with prior written consent of the student concerned or as stated below.

1) Administrators may have access to student records for internal educational and administrative purposes.

2) Members of the faculty may have access to academic records for internal educational and administrative purposes.

3) Non-academic records shall be routinely available only to administrators and staff charged with their maintenance. Faculty and staff may have access to all records for statistical purposes.

4) Directory information, as defined in this Appendix, may be released to any inquirer unless the student has specifically asked the director of Enrollment Services to withhold that information.

5) Unless under legal compulsion, all other information regarding students' records shall be denied to any person making an inquiry.

h. Upon graduation or withdrawal from the institution, the records and files of former students shall continue to be subject to the provisions of this code.

D. Rights and Responsibilities of Campus Organizations

1. Organizations, groups, and NCAA teams may be established within the institution for any legal purpose. Their recognition will be in accordance with established guidelines.

2. Membership in all institution-related organizations, within the limits of their facilities, shall be open to any fee-paying member of the institution community who is willing to subscribe to the stated aims and meet the stated obligations of the organization.

3. Individual members, as well as the organization, group, or team itself, can be charged with violations of the Code of Student Conduct, including those actions defined in the Hazing Policy section of this document.

4. Use of university facilities shall be granted to recognized student organizations. Student organizations shall be given priority for use of

space as outlined in procedures established by Event and Conference Services and the Student Government Association.

5. The authority to allocate institutional funds derived from student fees for use by organizations shall be delegated to a body in which student participation in the decision-making process is assured.

a. Approval of requests for funds is conditional upon submission of budgets to and approval by this body.

b. Financial accountability, in full accordance with university and state policies, regulations, procedures and practices, is required for all allocated funds, including statement of income and expenses on a regular basis.

c. Otherwise, organizations shall have independent control over the expenditure of allocated funds.

6. The student press is to be free of censorship. The editors and managers shall not be arbitrarily suspended because of student, faculty, administration, alumni or community disapproval of editorial policy or content. Similar freedom is assured oral statements of views on institution-controlled and student-operated radio or television stations. This editorial freedom entails a corollary obligation under the canons of responsible journalism and applicable regulations of the Federal Communications Commission.

7. All student communications shall explicitly state that the opinions expressed are not necessarily those of the institution or its student body.

E. Rights of Students in Institutional Government

1. All constituents of the institutional community are free, individually and collectively, to express their views on issues of institutional policy and on matters of interest to the student body. Clearly defined means shall be provided for student expression on all institutional policies affecting academic and student affairs.

2. The role of student government and its responsibilities shall be made explicit. There should be no review of student government actions except where review procedures are

agreed upon in advance, or where actions of the government are either potentially illegal or present a clear danger to either individual or institutional rights.

3. On questions of educational policy, students are entitled to a participatory function. Students shall be designated as members of standing and special committees concerned with institutional policy affecting academic and student affairs, including those concerned with curriculum, discipline, admission, academic standards, university governance and allocation of student funds.

F. Student Grievance Procedures

1. Any student or group may file a grievance against an administrative official or faculty member for violation of student rights as listed above.

2. The Office of Judicial Affairs may make a preliminary investigation to determine whether the charges can be disposed of informally by mutual consent without the initiation of official proceedings.

3. If the charges cannot be disposed of informally, the student or group may file an appeal to the Student Appeals Committee.

II. Code of Student Conduct

A. Rationale

The primary purpose for the imposition of discipline in the university setting is to protect the campus community. Consistent with that purpose, reasonable efforts will also be made to foster the personal, educational and social development of those students who are held accountable for violations of university regulations. However, the university must commit its policies and procedures first of all to protect and promote the academic enterprise. Consequently, it may be necessary to suspend

or expel students who have been found responsible for violations of this Code, or who otherwise pose a substantial danger to the campus community.

B. Definitions

1. The terms "university" and "institution" mean Towson University (TU).

2. The term “student” includes all persons taking courses at the university, both full-time and part-time, pursuing undergraduate, graduate, professional, certificate, or continuing studies. Persons who are not officially enrolled for a particular term but who have a continuing relationship with the university are considered “students.”

3. The terms “faculty member” and “instructor” mean any person hired by the university to conduct classroom activities.

4. The term “university official” includes any person employed by the university, performing assigned administrative, professional, or paraprofessional responsibilities (including student resident assistants and building managers).

5. The term “member of the university community” includes any person who is a student, faculty member, university official, or any other person employed by the university.

6. The term “university premises” includes all land, buildings, facilities, and other property in the possession of or owned, used, or controlled by the university (including adjacent streets and sidewalks).

7. The term “organization” means any number of persons who have complied with formal requirements for university recognition (including SGA, Greek, and NCAA).

8. The term “group” means a number of persons who are associated with each other but who have not complied with university requirements for registration as an organization.

9. The term “Hearing Board” means the hearing officer and judicial aides authorized by the director of Judicial Affairs to determine whether a student has violated the Code of Student Conduct.

10. The director of Judicial Affairs is that person designated by the university president to be responsible for the administration of the Code of Student Conduct.

11. The term “policy” is defined as the written regulations of the university as found in, but not limited to, the Code of Student Conduct, the Policies for University Housing, the Faculty Handbook, the university catalogs, the Towson University Procedures for

Events with Alcohol, and the Student Organizations Handbook.

12. The term “interim disciplinary action” means discipline which is imposed pending the outcome of a court case for off-campus behavior.

13. The term “banned from campus” means that a student is prohibited from coming onto university property. A student who is banned from campus may be allowed to finish current course work off campus, if appropriate, and a tuition refund may be granted. As a result of a ban, the student will not have a permanent file in the Office of Judicial Affairs. A ban will normally only be issued after the student has been offered a meeting with a representative of the Office of Judicial Affairs.

14. The term “non-consensual sexual intercourse” means any sexual intercourse (anal, oral, or vaginal), however slight, with any object, by man or woman upon a man or a woman, without effective consent.

15. The term “non-consensual physical conduct” of a sexual nature means any intentional sexual touching, however slight, with any object, by a man or a woman upon a man or a woman, without effective consent.

16. The term “effective consent” means consent that is informed, freely and actively given, and that uses mutually understandable words or actions which indicate a willingness to participate in mutually agreed upon sexual activity. Consent is not effective if it results from the use of physical force, threats, intimidation, or coercion.

17. The term “incapacitated sex” means to have sex with someone who you know or should know to be incapable of making a rational, reasonable decision about a sexual situation. This includes but is not limited to someone whose incapacity results from being intoxicated or from the taking of a so-called “date-rape drug.”

18. The USM Policy on Sexual Assault can be found at: www.usmd.edu/Leadership/BoardOfRegents/Bylaws

19. The term “stalking” means to follow or otherwise contact another person repeatedly, so as to put that person in fear for his or her life or personal safety.

20. The term "harassment" is defined as engaging in intentional conduct directed at a specific person or persons which seriously alarms or intimidates such persons and which serves no legitimate purpose. Such conduct may include: explicit or implicit threats, including gestures which place a person in reasonable fear of unwelcome physical contact, harm or death; following a person about in a public place or to or from his or her residence; making remarks in a public place to a specific person which are by common usage lewd, obscene, expose a person to public hatred or that can reasonably be expected to have a tendency to cause acts of violence by the person to whom the remark is addressed; or communicating anonymously by voice or graphic means or making a telephone call anonymously whether or not a conversation ensues.

C. Scope

1. Generally, student or group conduct subject to institutional discipline is limited to: on-campus actions; off-campus actions which affect the university community or the university's pursuit of its mission, policies or procedures; off-campus actions by officially sponsored organizations, groups, or NCAA teams; or actions on university property which is leased to, or managed by, an entity other than the university.

2. However, a student charged with a violation of federal, state, or local laws for off-campus behavior may be disciplined by the university without a judicial board hearing when: the student is found guilty by a court of law; the student pleads guilty or nolo contendere to the charges; the student is given probation before judgment; or, the case is settled.

Additionally, interim or final disciplinary action may be taken before any court action is completed. Examples of charges that may result in action include acts of violence, drug and alcohol related violations, and a citation for a disorderly house. Such action will be taken only after a limited investigation by the Office of Judicial Affairs and after the student has been offered a meeting with a university official.

Any interim action shall be reviewed, and appropriate final action taken, at the student's request or at the university's discretion, when a final court decision is rendered or when the university receives additional persuasive evidence.

3. Some conduct clearly disturbs only the campus environment; when such behavior occurs, the university shall take internal action.

4. When there is evidence that a student has committed a crime on campus, disciplinary action at the university will normally proceed independently of pending criminal charges, including when charges involving the same incident have been dismissed or dropped. The student may then be subject to civil authorities as well as internal disciplinary action.

5. When a student is charged with a violation of one or more provisions of this Code, a charge letter arranging a meeting with a representative of the Office of Judicial Affairs will be given or sent to the student within a reasonable amount of time. At the meeting, the student will be informed of:

- a. specific violation
- b. description of alleged incident
- c. hearing or informal investigation procedure
- d. rights of appeal

D. Prohibited Conduct

The following misconduct is subject to disciplinary action:

1a. Intentionally furnishing false information to the institution; this includes lying to university officials.

1b. Forging, altering, or using institutional documents or instruments of identification with intent to defraud, or to otherwise benefit there from.

1c. Possession of false identification (e.g., a false driver's license).

2a. Disruption or obstruction of teaching, research, administration or disciplinary proceedings.

2b. Disruption or obstruction of university sponsored activities or events.

3. Lewd, obscene or indecent behavior.

4. Physical abuse of any person.

5a. Unwanted physical contact or threat of physical contact with a university official.

5b. Threats of violence or placing a person in fear of imminent physical injury or danger.

5c. Any endangering conduct that imperils or jeopardizes the health or safety of any person or persons, including oneself.

5d. Stalking of any person.

6. Inflicting mental or emotional distress upon a person through a course of conduct involving abuse or disparagement of that person's race, religion, sex, creed, sexual orientation, age, national origin or disability.

7. Acts that invade the privacy of another person.

8. Sexual assault, as defined by the USM Policy on Sexual Assault, including but not limited to non-consensual sexual intercourse, incapacitated sexual intercourse, and non-consensual verbal or physical conduct of a sexual nature.

9. Abuse of any person; this includes verbal, written, e-mail, or telephone abuse.

10. Intentionally or recklessly damaging, destroying, defacing or tampering with university, public or personal property of another.

11. Uncooperative behavior and/or failure to comply with proper instructions of officials acting in performance of their duties.

12. Violation of published institutional regulations and policies.

13. Violation of state, federal and local laws.

14. Unauthorized presence in institutional facilities.

15a. The possession or use of illegal drugs or drug paraphernalia when not in accordance with established policy.

15b. The sale, distribution or intent to distribute; and/or manufacture of illegal drugs when not in accordance with established policy.

16. The possession or use of any firearms or instrument which may be construed as a weapon, without express permission of the University Police.

17. The possession of explosives, fireworks, or pyrotechnic paraphernalia on campus.

18a. The possession or use of alcoholic beverages when not in accordance with established policy.

18b. Public intoxication.

19. The unauthorized use of or entry into university computer systems.

20. Violation of the university housing policy.

21. Violation of any disciplinary sanction.

22. Charging telephone or telecommunications charges to university telephones or extension numbers without authorization.

23. Theft, attempted theft, possession of stolen property, conspiracy to steal or misappropriation of another's property. This includes, but is not limited to, removing, possessing, concealing, altering, tampering or otherwise appropriating goods or property without authorization.

24. Violation of the Student Academic Integrity Policy.

25. Harassment of any person.

E. Penalties

The following penalties may be imposed upon students and all student organizations for violations of the Code of Student Conduct. With only two exceptions, federal regulation prohibits disclosing the outcome of judicial proceedings to anyone other than to the accused and to appropriate university personnel. The first exception relates to allegations of sexual assault: in those cases, the university will disclose to the victim of a sexual offense the outcome of any investigation by University Police or the Office of Judicial Affairs pursuant to the victim's complaint against the alleged perpetrator of the sexual offense. The second case relates to alcohol and drug violations: the parents of students under the age of 21 may be notified when students are found responsible for violations of the university's alcohol or drug policies.

1. **CENSURE:** A written reprimand for violation of specified regulations, including a warning that continuation or repetition of prohibited conduct may be cause for additional disciplinary action. This may include a specified period of probation.

2. **PROBATION:** Notice to the student that any further disciplinary violation, during a specified period of time, may result in suspen-

sion or expulsion from the university and or university housing.

3. SOCIAL PROBATION: Exclusion from participation in privileged or extracurricular institutional activities, including NCAA athletic events or practice, for a specified period of time. Additional restrictions or conditions may also be imposed. Violations of the terms of social probation, or any other violation of this Code during the period of probation, will normally result in a fine, suspension or expulsion from the university.

4. SUSPENSION: Suspension involves separation of the student from the university for a specified period of time and usually impairs a student's ability to pursue work at other colleges and universities. Normally, the student will also be barred from university premises during the period of suspension. Any student who is suspended shall not be entitled to any tuition or fee refund.

5. EXPULSION: Expulsion constitutes permanent separation of the student from the university. Any student who is expelled shall not be entitled to any tuition or fee refund.

6. SUSPENSION OF GROUP: Suspension shall consist of the withdrawal of an organization's recognition by the university, for a stated period of time, when an organization is found to have violated regulations. Suspension shall result in complete suspension of activities of the group during the stated period of time and may also include conditions for removal of suspension.

7. ORGANIZATIONAL DISSOLUTION: Organizational dissolution is a sanction imposed only upon student organizations guilty of serious and/or repeated violations of these standards. The sanctions involve permanent withdrawal of recognition by the university, denial of the use of university facilities or funds, and official dissolution of the organization on the campus.

8. RESTITUTION: Restitution may be imposed on students whose violation has involved monetary loss or damage. Fines may be imposed in addition to restitution. Restitution becomes a financial obligation to the university and either full payment or an agreement for partial payment according to a sched-

ule agreed to by the director of Judicial Affairs is required before a student may register for classes again, or in the case of seniors, before the student may graduate.

9. TERMINATION OF UNIVERSITY HOUSING CONTRACT: Termination of a student's university housing contract may be imposed in order to safeguard the residence community if the seriousness of the violation warrants such action.

10. FINES: Fines of varying amounts may be imposed for certain violations, such as alcohol and drug related incidents. Fines must be paid prior to the end of the current term, otherwise a student's registration privileges will be withheld or prior registration canceled.

11. OTHER SANCTIONS: Other sanctions may be imposed instead of or in addition to those specified above. For example, students may be subject to restrictions upon or denials of university parking privileges for violations involving the use or registration of motor vehicles on campus; sanction hours or research projects may be assigned; or the university housing contract may be placed on probation.

12. DRUG PENALTIES: (see Substance Abuse Policy below)

F. Standards and Procedures of Due Process

1. Students subject to suspension or expulsion from the university will be entitled to a judicial board hearing, except as described in section C.2. With the exception of allegations of academic dishonesty (see the section below: Student Academic Integrity Policy), students subject to any other sanction will be entitled to an informal investigation.

2. The purpose of a disciplinary proceeding is to provide a fair evaluation of an accused's responsibility for violating disciplinary regulations. Although formal rules of evidence need not be applied, procedures shall comport with standards of fundamental fairness. Harmless deviations from the prescribed procedures shall not necessarily invalidate a decision or proceeding unless significant prejudice to an accused student or the university may result.

3. Any person may refer students or student

groups or organizations suspected of violating this Code to the Office of Judicial Affairs. Allegations of violations occurring within university housing should be referred to the Department of Housing & Residence Life. Those referring cases are normally expected to serve as a witness and to present relevant evidence in disciplinary hearings or informal investigations. The director of Judicial Affairs may appoint a member of the campus community to serve as an adviser to university witnesses. The role of the adviser shall be limited to consultation with the witnesses.

4. Suspensions and expulsions from the university will be made by the vice president for Student Affairs or designee. All other sanctions will be determined by the director of Judicial Affairs, or designee. In all cases, the accused will be notified in writing of any sanctions to be imposed and of his or her rights of appeal.

G. Informal Investigation and University Hearing Procedure

1. **Informal Investigation:** The informal investigation is designed to reduce unnecessary proceduralism and potential contentiousness in disciplinary proceedings. An informal investigation will normally begin with an informal, nonadversarial meeting between the accused and a university administrator, as designated by the director of Judicial Affairs. The university shall consider all matters that reasonable persons would accept as having probative value, including documentary evidence, written statements and hearsay. The accused will be given access to documentary evidence and written statements in advance or during the initial meeting and allowed to respond to them. Accused are also allowed to submit the names of appropriate and relevant witnesses.

The following procedural protections are provided to respondents in the informal investigation.

- a. written notice of the specific charges prior to or at the initial meeting.
- b. reasonable access to the case file during the informal investigation or at the student's request.
- c. an opportunity to respond to the evidence

and call appropriate and relevant witnesses.

2. **University Hearing:** The following procedural guidelines shall be observed for all hearings held by the University Hearing Board. The University Hearing Board will be composed of the hearing officer, who shall preside and make the final decision, and one or two student judicial aides. In the absence of the judicial aides, the hearing officer may hear and decide the case alone. A case may not be heard if the hearing officer, or designated substitute, is not in attendance. The hearing officer shall be responsible for submitting the hearing panel's report to the Office of Judicial Affairs.

- a. The accused shall be given notice of the hearing date and the specific charges against him or her at least three calendar days in advance and shall be accorded reasonable access to the case file, which will be retained in the Office of Judicial Affairs. (In some cases, the accused may choose not to wait three days for a hearing to take place.)
- b. The hearing will be tape recorded. The taped records will be kept on file in the Office of Judicial Affairs for one term following the hearing.
- c. The accused will be present for the hearing. If more than one student is charged with the same incident, the university may hold a combined hearing. If the accused fails to appear, this will be stated for the record and the hearing will continue.
- d. The accused and the complainant may be accompanied by a friendly observer. This party may not be or act as legal counsel, except when concurrent criminal charges have been filed. Then counsel may not participate in the hearing, but may advise the accused.
- e. The hearing officer shall exercise control over the proceedings to avoid needless consumption of time and to achieve orderly completion of the hearing. Any person, including the accused, who disrupts a hearing may be excluded by the hearing officer.
- f. The accused will be found responsible if

the hearing officer decides that a preponderance of evidence supports the charges. Preponderance of the evidence is that evidence, which, when fairly considered, produces the stronger impression, has the greater weight, and is more convincing as to its truth when weighed against the evidence in opposition thereto.

- g. Formal rules of evidence shall not be applicable in disciplinary proceedings conducted pursuant to this Code. The hearing officer shall admit all matters into evidence that reasonable persons would accept as having probative value, including documentary evidence, written statements, and hearsay. Repetitious or irrelevant evidence may, however, be excluded. Documentary evidence and written statements shall only be admitted into evidence if available to the accused before or during the hearing.
- h. The director of Judicial Affairs may appoint a special hearing panel member in complex cases. Special panel members may question all parties, participate in hearing panel deliberations, and offer advice to the hearing officer.
- i. The hearing officer's report will be presented to the Office of Judicial Affairs. The student may view the hearing officer's written report by appointment.
- j. The accused will receive the decision in writing from the vice president for Student Affairs or designee.

H. Judicial Procedures for Student Organizations, Groups, and NCAA Teams

1. Student organizations, groups, and NCAA teams (referred to here collectively as "group") may be charged with violations of the Towson University Code of Student Conduct.

2. When one or more members of a group are charged with a violation of the Code of Student Conduct, the university may charge the group as well. A student group and its officers may be held collectively and individually responsible when violations of this Code by those associated with the group have received the consent or encouragement of the group or of the group's leaders or officers.

3. A position of leadership in a student group entails responsibility. Student officers or leaders cannot knowingly permit, condone, or acquiesce in any violation of this Code by the group. This section of the Code is designed, in part, to hold a group and its officers accountable for any act of hazing. The express or implied "consent" of the victim or participant is not a defense.

4. The officers, leaders, or any identifiable spokesperson for a student group may be directed by the vice president for Student Affairs or designee to take appropriate action designed to prevent or end violations of this Code by the group. Failure to make reasonable efforts to comply with the vice president for Student Affairs' directive shall be considered a violation of this Code, both by the officers, leaders, or spokesperson for the group and by the group itself.

5. An informal investigation for student groups will be conducted in a manner similar to the procedures listed above. Conferences shall be conducted with one spokesperson representing the group, usually the president. Any sanction listed in the Code of Student Conduct may be imposed on a group and its individual members. If individual members are subject to suspension or expulsion from the university for actions of the group, those individuals will be offered a judicial board hearing.

I. Emergency Suspensions

1. When there is evidence that the continued presence of a student on the university campus poses a substantial threat to him/herself or others, or to the stability and continuance of normal university functions, the vice president for Student Affairs or designee, may immediately suspend a student from any or all university activities, including university housing, for an interim period pending a hearing or medical evaluation. Such an emergency suspension may become effective immediately without prior notice.

2. An emergency suspension may be imposed only:

- a. to ensure the safety and well-being of members of the university community;

- b. to ensure the student's own physical or emotional safety and well-being;
- c. if the student poses a definite threat of disruption of or interference with the normal operations of the university.
- 3. A student issued an emergency suspension shall be denied access, as determined appropriate by the vice president for Student Affairs or designee, to:
 - a. the entire campus, including classes;
 - b. university housing and dining facilities;
 - c. all other activities or privileges for which the student might otherwise be eligible.
- 4. In these cases, a university hearing or medical evaluation will be scheduled as soon as is practicable.

J. Appeal Procedures

1. Any disciplinary determination resulting in expulsion or suspension from the university may be appealed to:

- a. the Student Appeals Committee
- b. the president of the university

2. Any disciplinary determination resulting in suspension from university housing may be appealed to: the Student Appeals Committee.

3. Any disciplinary determination resulting in any lesser sanction except as provided below may be appealed to the vice president for Student Affairs.

The basis for appeal of a disciplinary sanction must be one of the following:

- a. a flaw in the student's right of due process
- b. evident bias in the decision of the hearing board or the individual conducting an informal investigation
- c. inconsistent or overly severe sanction imposed
- d. new evidence or insufficient consideration of all aspects of the situation

Appeals must be submitted in writing to the Office of Judicial Affairs within five business days after receipt of the sanction letter. Failure to appeal within the allotted time will render the original decision final and conclusive. Appeals shall be decided upon the record of the original proceedings, written letters submitted by the parties, and any further information requested by the committee.

The imposition of sanctions will not be deferred during the appeal process unless the student presents a compelling reason to the vice president for Student Affairs.

STUDENT ACADEMIC INTEGRITY POLICY

Towson University reserves the right to amend the Code of Conduct when necessary. Students should check the Towson University Web site (www.towson.edu/studentaffairs/policies/conduct.asp) for the most current code.

HAZING POLICY

"Hazing" in any form is against the law (Annotated Code of Maryland, Article 27, Section 268H) and is strictly prohibited at Towson University. When this policy is violated, action may be taken against all participants, including pledges. The most damaging instrument to campus organizations (social, honor, service, athletic) is the employment of a program of education, pledging, membership, or induction which includes hazing. Hazing risks human lives, mistreats those involved, and jeopardizes the affiliation of campus organizations at this university.

Definition

"Hazing" is defined as any action taken or situation created intentionally, whether on or off campus, to produce mental or physical discomfort, embarrassment, harassment or ridicule. Any mental or physical requirement, request or obligation placed upon any person that could cause pain, disgrace, or injury, or is personally degrading or violates any federal, state, local statute or university policy is also considered hazing.

Such activities and situations include but are not limited to: paddling in any form; creation of excessive fatigue; road trips; scavenger hunts; publicly wearing apparel which is conspicuous and not normally in good taste; engaging in public stunts and humiliating games and activities; late night sessions that interfere with scholastic and occupational activities; calisthenics (push-ups, situps, runs, etc.); line-ups (lining people up and harassing them verbally); running personal errands for

the members; forced consumption of alcohol, illegal substances, or food; and any other activities not consistent with the academic mission of the university.

Reporting Procedures

Anyone experiencing or witnessing a violation of this hazing policy is encouraged to report the incident and may bring their concerns to the Office of Judicial Affairs at 410-704-2057, Administration Building 236 and/or Campus Life at 410-704-2322, University Union 217.

NON-DISCRIMINATION POLICY

Towson University's policies, programs and activities comply with federal and state laws and University System of Maryland regulations prohibiting discrimination on the basis of race, color, religion, age, national origin, sex, disability and sexual orientation. The university does not discriminate on the basis of sexual orientation. Sexual harassment (see following section) is considered a form of sexual discrimination.

Procedure for Filing and Investigating

Complaints of Discrimination in Education or Employment:

Students and employees may bring concerns about discrimination or unfair practices in education or employment to the fair practices officer for investigation (Administration Building 205, 410-704-2361). After a student or employee has filed a formal complaint, full information from the complainant, from university records, and from university personnel involved in the incident will be gathered and a determination as to the merits of the complaint will be made.

The investigation will normally be completed within 30 days. If a key person is unavailable or if the complaint is complex, involves a grade dispute or other faculty matter, the investigation may take longer. Every effort will be made to complete the investigation within the term in which it is filed, unless the complaint is filed within the last two weeks of a term, in which case every effort will be made to complete the investigation by the beginning of the following term.

Students are encouraged to bring incidents that they think are discriminatory to the attention of university officials. The university cannot take appropriate action unless it is aware that a problem exists. For more information, visit www.towson.edu/AA.

SEXUAL OR GENDER HARASSMENT

Sexual harassment constitutes a serious threat to the free interaction and exchange necessary for educational and personal development, and it is entirely unacceptable on this campus. Definition: Sexual or gender harassment may range from offensive gender or sexual innuendos to coerced sexual relations. It can happen to both men and women, but women are more often victims. Harassment occurs when a person in a position of control or influence uses authority and power to gain sexual advances and threats or punishes for refusal to comply. It includes suggestive remarks about clothing or physical attributes; leering or ogling; unnecessary touching; subtle or direct requests for sexual favors; implied or overt threats of consequence; or a hostile sexual environment.

Students and employees may bring concerns about sexual harassment to the fair practices officer for investigation (Administration Building 211, 410-704-2361). For more information, visit www.towson.edu/AA.

AIDS POLICY

In accordance with the university's Non-Discrimination Policy, no student, faculty or staff member shall be denied access to the academic, social or employment opportunities offered by Towson University solely because he/she has AIDS or is an HIV carrier. A university committee will be appointed by the president to evaluate individual cases of HIV infection and to make recommendations as questions of risk or cases of specific exigencies. Educational programs will be implemented for the campus and the campus community to assist in preventing further spread of the virus.

POLICY ON SUBSTANCE ABUSE FOR FACULTY, STAFF AND STUDENTS

University System of Maryland Policy

The University System of Maryland, as an employer, strives to maintain a workplace free from the illegal use, possession, or distribution of controlled substances (as defined pursuant to Controlled Substances Act, 21 U.S.C. Sections 801, et. seq.). Unlawful manufacture, distribution, dispensation, possession or use of controlled substances by university employees in the workplace is prohibited under university policy. In addition to any legal penalties under federal and state law, employees found to be in violation of this policy or the Maryland Governor's Executive Order on Substance Abuse, 01.01.1991.16, may be subject to corrective action under applicable university personnel policies. The university supports programs aimed at the prevention of substance abuse by university employees. Employees are encouraged to seek assistance for substance-dependency problems. Employee-assistance counseling and leaves of absence to attend rehabilitation programs are appropriate means of dealing with these problems.

Towson University Policy

The use of controlled substances and the abuse of alcohol present a serious threat to individual health and everyone's safety. Moreover, the use of illegal drugs and the abuse of alcohol can result in less than complete reliability, stability, and good judgment which is inconsistent with the standards set for the faculty, staff and students of this university. Towson University, as an employer, strives to maintain a workplace free from illegal use, distribution or possession of controlled substances. Any person found to be participating in such activity will be subject to administrative disciplinary action, mandatory counseling and treatment and/or criminal proceedings.

The use, possession, and/or sale of illegal drugs are considered violations of Towson University's Code of Student Conduct, the faculty contract, and the terms of employment of regular, contingent (exempt/non-exempt) staff. Faculty, students and employees who

use, possess or sell illegal drugs shall be subject to discipline, including mandatory counseling, suspension or dismissal from the university. The university will take disciplinary action based on reasonable available information; such action will be independent of any civil or criminal processes precipitated by the same incident and will follow the policies and procedures of the university and the University System of Maryland Board of Regents. In the workplace, use, possession, and/or sale of illegal drugs and controlled substances are also violations of state and federal laws for which individuals are subject to university disciplinary processes and/or arrest and criminal prosecution.

These serious workplace situations must be handled in ways which ensure the protection of the civil rights and handicapped rights of the accused, the treatment and rehabilitation of employees, and the notification of the necessary administrative and legal authorities.

Specific procedures for reporting drug use, penalties and appeals are part of the Towson University Code of Conduct. Employee disciplinary measures and appeals for violations of this policy as well as other policies of the university are part of the Faculty Handbook, the Part-Time Faculty Handbook, and the Personnel Manual.

In addition to the university policy on substance abuse, all employees of the university, including student employees, are subject to the Maryland Governor's Executive Order 01.01.1991.16 on the Drug and Alcohol Free Workplace.

In accordance with federal legislation, Towson University's substance abuse policy will be distributed annually to all students and employees through the campus or U.S. mail.

Education

In accordance with federal legislation, there will be an annual distribution in writing, to each employee and student of:

1. the dangers of drug abuse in the workplace (to include student employees);
2. the institution's policy of maintaining a drug-free workplace and drug-free campus;

3. standards of conduct that clearly prohibit, at a minimum, the unlawful possession, use or distribution of illicit drugs and alcohol by students and employees on university property or as part of any university activities;
4. a description of applicable legal sanctions under local, state or federal law;
5. a description of health risks associated with the use of illicit drugs and abuse of alcohol;
6. a description of available drug or alcohol counseling, treatment, or rehabilitation and/or reentry programs;
7. a clear statement of the disciplinary sanctions that the university will impose on students and employees.

All supervisory faculty and staff will receive training on drug awareness and treatment. This training program shall include existing as well as new supervisory personnel. Drug awareness training will be an integral part of the university's student orientation program.

Faculty and staff orientations will include programming especially designed to focus on the university's policy toward substance abuse.

Employee/Student Assistance Programs

Towson University's health and drug education programs will inform the entire university community of the physical and psychological effects of the non-medically supervised use of illegal drugs, alcohol and consciousness expanding drugs. The education program shall make employees aware of the consequences of prosecution under local, state and federal laws and the rules for governance for university imposed discipline.

The university recognizes the importance of individual rights and respects the privacy of employees and students. To this end, the university has an established counseling program for students and an Employee Assistance Program (EAP) for faculty and staff. These programs have been designed to provide counseling and rehabilitative services. Employees and students are encouraged to contact the appropriate program in the event they have a sub-

stance abuse problem. In this way a student or employee can correct the problem before it jeopardizes a job, an education, family, or individual well being.

Employees or students who need help with a problem of drug abuse shall be encouraged to call the Counseling Center, the Health Center, Human Resources or the office of the vice president for Student Affairs. The resources of the Counseling Center shall be available for supervisors who wish consultation in handling employees who may have substance abuse problems. The call will be treated with confidentiality and respect.

Voluntary participants in an assistance program will not jeopardize their continued employment or enrollment at the university provided that their job performance or behavior is consistent with established standards. However, voluntary participation in an assistance program will not prevent disciplinary action for violation of the policy described herein, where such violation has already occurred.

Procedures for Grievances and Appeal

Towson University strongly encourages the use of drug rehabilitation programs as the key-stone to a drug-free environment. For each class of employee and student category, the formal rules of procedure remain intact. These include the student judicial procedures and criminal justice procedures. Following a conviction for violation of a drug offense in the workplace, disciplinary action can be imposed, up to and including termination or disenrollment. As a condition of continued employment or education, an employee or student may be required to participate in an approved drug abuse rehabilitation program.

Suspected Drug Use, Possession, or Sale

The use, possession or sale of illegal drugs violates state and federal laws for which all offenders are subject to arrest and criminal prosecution, as well as university administrative processes. These serious offenses must be handled in ways to ensure the guarding of evidence, the protection of civil rights of the accused, and notification of the proper author-

ities. To this end, specific procedures outlined in this policy are to be followed in any campus situation where substances are suspected to be illegal drugs.

Any individual, student or employee, directly associated with the University System of Maryland who uses or becomes involved with illegal drugs without proper medical supervision, shall be subject to discipline, including suspension or dismissal, as appropriate.

Students, faculty and staff, in their routine activities, may observe suspected illegal drug activities. As a result, some staff members may become involved in the determination of disciplinary action that follows suspected use, possession or distribution of an illegal substance. Specific actions or responsibilities in regard to the suspicion of illegal substances have been outlined in other paragraphs of this policy.

The university reserves the right to conduct drug testing consistent with applicable federal and state laws.

Alcohol Use and Abuse

Towson University views with alarm the potential and real problems caused by alcohol abuse and alcoholism. The alcohol policy has been directed to students and employees engaged in the legal use of alcohol. The implicit as well as explicit focus for prudent drinking is with moderation rather than intoxication.

Any person using alcoholic beverages at any time and at any place while on the Towson University campus is responsible to civil and university authorities for compliance with state and county law.

It is against Maryland state law for anyone under the age of 21 to purchase, possess or consume alcoholic beverages.

It is unlawful for any minor to knowingly and willfully make any misrepresentation or false statement as to his/her age in order to obtain alcoholic beverages.

It is unlawful for any person to purchase alcoholic beverages for consumption by an individual who is known to be a minor.

It is unlawful for any person to possess open containers of any alcoholic beverages in a public place.

Policies concerning the possession and/or use of alcoholic beverages on campus and at special university/community events shall be the delegated responsibility of the vice president for Student Affairs and associate provost.

Procedures for Reporting Substance Abuse

The following information shall provide the basic guidelines for the reporting of student or employee drug use, possession, sale or distribution. Other procedures to be followed have been specified in other sections of this policy.

Upon observing or receiving a report of suspected use, possession, or distribution of an illegal drug or the illegal use of alcohol, faculty and staff, and/or students shall proceed in the following manner:

Step One: Report suspicions of illegal drug/ or alcohol use or possession to the administrator of your area or the appropriate vice president. Any faculty or staff member who observes the workplace use or possession of illegal drugs or alcohol must take appropriate action.

Students observing drug activity in the residence halls should notify a housing staff member. These administrators will notify the appropriate authorities and take appropriate action.

Step Two: Use judicious thought and sound judgment when approaching individuals suspected of illegal drug or alcohol use, possession or distribution. It is preferable to leave drugs or alcohol in their original location until the authorities take action.

Step Three: The university administration will determine if state or federal laws may have been violated. University employees should not become involved in mediating any situation involving illegal drug or alcohol use.

Penalties for Substance Abuse Penalties for Faculty and Staff

Towson University strongly encourages the use of drug rehabilitation programs as an effective measure in creating a drug-free workplace program. However, additional penalties may be implemented up to and including reprimand, suspension, mandatory counseling,

mandatory participation in a drug rehabilitation program and/or dismissal. Appropriate university grievance procedures shall be used for each classification of employee.

Consistent with the Governor's Executive Order 01.01.1991.16 (found at www.dsd.state.md.us/comar/01/01.01.119.16.htm), any employee charged with an alcohol driving offense or a controlled dangerous substance offense must report a finding of guilty, an acceptance of a plea of *nolo contendere*, or a probation before judgment to the employee's appointing authority within five working days.

Employees designated "sensitive" by Towson University are subject to penalties set forth by the Governor's Executive Order.

Any individual who has been convicted of a controlled dangerous substance offense on or after January 1, 1991, shall be required to disclose that fact when applying for a license renewal. The licensing authority may refuse to issue the license or impose appropriate conditions on the license, except for noncommercial driver's licenses (Maryland Drug Enforcement Act of 1990).

Maryland law [Art. 27, 8, 286, and 287 Annotated Code of Maryland (1990)] states that persons who manufacture, distribute, dispense, or possess a controlled dangerous substance may be subject to imprisonment (length of time varies) and fines (\$15,000 and up).

Penalties for Students

In addition to the laws of the University System of Maryland, the state of Maryland and the nation, Towson University students shall be governed by rules referred to as the "Towson University Code of Conduct." Within these campus guidelines, students shall be subject to institutional discipline if they use, possess, distribute, or sell illegal drugs and illegally use or abuse alcohol. There may be various penalties applied to the student convicted of misuse of drugs and alcohol, depending on the situation. Individuals are encouraged to use voluntary rehabilitation programs and may be required to receive mandatory counseling and treatment. If a student is suspected by the uni-

versity police to have violated state and/or federal laws with regard to illegal drugs or use of alcohol, the student will be subject to arrest and criminal prosecution.

All students suspected of substance abuse violations may be referred to the director of Judicial Affairs. The student will be subject to a due process hearing in accordance with institutional disciplinary guidelines. Disciplinary action at the university will normally proceed whether or not criminal charges related to the same incident have been processed and sustained. The university encourages voluntary counseling and may require participation in an approved treatment program.

Where there is evidence that the continued presence of a student on the university campus poses a substantial threat to self, others, or to the stability and continuance of normal university functions, the vice president for Student Affairs and associate provost, or a designee, may immediately suspend, on an emergency basis, a student from any or all university activities (including university housing programs and class attendance) pending a hearing or medical evaluation. A hearing will be scheduled in a timely fashion to adjudicate the case as swiftly as possible. During the period of emergency suspension, if the student needs access to the campus, arrangements can be made for the student to come to campus, on a limited basis, to attend counseling sessions and/or conduct business, usually with an escort. Such an interim suspension can become effective immediately without prior notice.

The following penalties described herein are in addition to those penalties listed in the section on general procedures and penalties for suspected drug use, possession, or sale. The specific penalty prescribed will usually depend on the nature of the alleged violation. Penalties may be administered following a judicial hearing where the suspected offender has been found to be guilty of specific charges. Possible penalties for student violations may include, but are not limited to, the following:

PENALTY ONE: The student user may be subject to referral to a mandatory drug treatment/education program, and/or the termination of the university housing contract, denial

of access to university housing halls and social functions. If suspended, permission to return to school will be considered after the period of suspension and a verified report of attendance in a drug treatment/education program. Repeat offenders may be subject to more severe actions.

PENALTY TWO: The student distributor may be subject to referral to a mandatory drug treatment/education program and/or suspension from school. Permission to return to school will be considered after the period of suspension and a verified report of attendance in a drug treatment/education program. Repeat offenders may be subject to more severe actions.

PENALTY THREE: The student conspirator, who brings together the seller and the buyer, may be subject to referral to a mandatory drug treatment/education program and/or suspension. Permission to return to school after the period of suspension will be considered with verified attendance in a drug treatment/education program.

PENALTY FOUR: Greek Organizations, that have been found to tolerate drug use, possession, and/or sale on the part of their members will be subject to a drug education program for the group. Maryland law [Art. 27, § 8, 286, and 287 Annotated Code of Maryland (1990)] states that persons who manufacture, distribute, dispense, or possess a controlled dangerous substance may be subject to imprisonment (length of time varies) and fines (\$15,000 and up).

Recipients of Federal Grant/Contracts/Awards

Any faculty, staff member or student applying 1) for a federal grant/contract in which an in-the-workplace drug-free policy has been required, 2) for a "Pell Grant" or any other student/faculty grant/award or fellowship in which an in-the-workplace drug-free policy has been required, and 3) for a subcontract with the Department of Defense, will be required to comply in accordance with federal regulations.

1. Each individual must certify in writing to abide by the terms of the Towson University

Drug-Free Workplace Policy.

2. Each individual must notify the Office of University Research Services or the Office of Financial Aid of any criminal drug conviction occurring in the workplace, no later than five days after conviction.

The university will be responsible for notifying any contracting or granting agency, within 10 days of employee notification otherwise receiving actual notice, of a conviction in (2) above.

If a grant or award is directly made to an individual, rather than the institution, the individual will certify in writing to the institution to not engage in unlawful manufacture, distribution, dispensation, possession, or use of any controlled substance in the workplace or while conducting any work activity with the grant/contract and will abide by the terms of this Towson University Substance Abuse Policy.

Relationship with External Contractors

The university is committed to encourage all nonstate entities, who do business with the university or otherwise receive funds from the university, to make a "good faith" effort to eliminate illegal drug abuse from their workplace. Therefore, in accordance with Executive Order 01.01.1991.16, the university shall take whatever action necessary and appropriate to require a drug-free workplace, in accordance with applicable federal and state law, on each recipient of a state contract, grant, loan or other state funding instrument.

Biennial Review

The Towson University Substance Abuse Policy and Program will be reviewed every two years (a) to determine effectiveness and the need to implement change as necessary, and (b) to assure that sanctions developed and implemented were consistently enforced.

Responsibility

The president of Towson University will appoint a campus coordinator for all substance and alcohol abuse programs. This administrator will be responsible to the president for the implementation of this policy and the university's Drug Free Workplace and

Drug Free Campus plans. The president shall also hold responsible all faculty, staff, and students for supporting the campus coordinator, especially those who occupy positions of leadership and supervision.

“Good Faith” Efforts

Towson University will at all times make a “good faith” effort to maintain a drug-free and substance abuse free workplace and campus through the implementation of this policy.

Appendix E

GRADUATE STUDENT PROCEDURES FOR APPEALS AND PETITIONS

Student Responsibilities and Rights

Responsibilities: The student is responsible for: 1) observing all university and Graduate School policies, regulations, procedures and academic requirements, including specific requirements of the program; and 2) maintaining a high standard of academic integrity.

Rights: Students are entitled to privacy, expression, nondiscrimination, nonharassment and the opportunity to appeal, petition or contest university actions pursuant to the procedures referenced below.

Pursuant to the procedures set forth below, students shall have the opportunity: 1) to appeal their dismissal from the Graduate School; 2) to appeal grades; 3) to petition for an exception from academic policies; and 4) to contest disciplinary sanctions.

I. Procedures Applicable to Academic Sanctions and Grades

A. Exceptions to Academic Policies: A student may petition for an exception to academic policies. The petition must be directed to the director of Graduate School Operations and must be supported in writing by the Graduate Program Director. Following review, the director of Graduate School Operations shall provide the student written notification

of his/her decision on the petition. The student may submit a written appeal of this decision to the Graduate Studies Committee, normally c/o the Associate Dean of the Graduate College. The Graduate Studies Committee shall notify the student of its decision on the petition in writing. Thereafter the student may file a written appeal of the Graduate Studies Committee decision to the graduate college dean. The decision of the Graduate College dean shall be final.

A petition filed pursuant to this provision must be filed in writing within 30 days of the date of the letter notifying the student of the decision from which an exception is sought.

B. Academic Dismissal: The Director of Graduate School Operations may dismiss a student for academic reasons based on Graduate School policies or on the recommendation of a Graduate Program Director or a department. The student shall be notified in writing of the academic dismissal by mail to the student's last known address. The student may appeal the dismissal in writing to the Graduate Studies Committee. Any appeal to the Graduate Studies Committee must be filed within 15 business days of the date of the letter notifying the student of dismissal. Following its review, the Graduate Studies Committee shall notify the student in writing of its decision. The student may appeal the decision of the Graduate Studies Committee in writing to the dean of the Graduate College within 15 business days of the date of the letter from the Graduate Studies Committee notifying the student of its decision. The decision of the dean of the Graduate College shall be final.

C. Grade Appeals: A student appealing a course grade must make all reasonable efforts to resolve the matter informally by first meeting with the instructor. If the instructor declines to change the course grade, the student can meet with the Graduate Program Director who may consult with the department chair and dean. If the problem is not resolved to the student's satisfaction, the student may appeal in writing to the Graduate Studies Committee. Any appeal to the Graduate Studies Committee must be filed no later than the end of the term following the one in which the grade was

received. The student can file a written appeal of the Graduate Studies Committee's decision to the dean of the Graduate College within 15 business days of the date of the letter from the Graduate Studies Committee notifying the student of its decision. The graduate college dean's decision is final.

II. Procedures Applicable to Disciplinary Actions

A. Academic Integrity: Instructors are responsible for maintaining the academic integrity of courses and will initially handle problems of academic misconduct, including, but not limited to, cheating and plagiarism. The instructor may lower the student's grade or give a failing grade for the course. A student may contest the instructor's sanction first to the instructor, then to the department chair, then to the dean of the college. If the matter is not resolved by the college dean, the student may appeal in writing to the Graduate Studies Committee within 15 business days following the dean's decision. Any appeal to the Graduate Studies Committee shall be filed with the Committee no later than the end of the term following the one in which academic sanction was imposed. The decision of the Graduate Studies Committee shall be final.

Hearings

Students are expected to maintain a high standard of academic integrity. If a violation of academic integrity occurs and if the instructor decides that further action beyond an academic sanction within the course is warranted, the instructor shall notify the student that a written report of the incident is being filed with the Graduate Studies Committee.

The Graduate Studies Committee shall review the incident report and determine whether to charge the student with academic dishonesty, which includes, but is not limited to, cheating, plagiarism, falsification of documents or misuse of academic materials. If the Graduate Studies Committee determines there is a basis upon which to charge the student, the Committee shall notify the student in writing of the charge. The notification shall include the nature of the charge, a summary of the

facts supporting the charge and possible sanctions. The student shall have the opportunity to request a hearing to contest the charge and must do so within 15 business days from the date of the letter from the Graduate Studies Committee notifying the student of the charges. If the student requests a hearing, it shall be conducted pursuant to the procedures set forth below. If the student does not request a hearing, the Graduate Studies Committee can impose an appropriate sanction including dismissal from the Graduate School.

Hearing Procedures

1. The proceedings are recorded.
2. The chair of the Graduate Studies Committee explains the purpose of the hearing.
3. The student shall be present for the hearing and the charges shall be read to the student. If the student does not appear, this will be stated for the record and the Graduate Studies Committee can proceed with a finding that the student committed the conduct as alleged.
4. The student may be accompanied by a friendly observer. This person may not act as legal counsel, except when concurrent criminal charges have been filed. Then counsel may advise the accused party but may not otherwise participate in the hearing.
5. Evidence, either in writing or by testimony of witnesses, is presented. Witnesses may be questioned by the committee and the student.
6. The student is afforded an opportunity to present his or her side of the story and to call witnesses. Character witnesses will not be allowed. Witnesses for the student may be questioned by the committee.
7. The committee members may ask questions of the student, the instructor and the graduate coordinator and any other person who have relevant information about the matter.
8. The student may ask questions and make a closing statement.
9. The committee deliberates in executive session and renders a decision. These deliberations are not recorded.
10. The student is notified of the decision by letter within 15 days after the hearing is concluded. When appropriate, the notification

tion includes instructions on further appeals.

11. The recording will be kept on file in the Graduate School for at least one year.

Appeals

A student may appeal the decision of the Graduate Studies Committee to dean of the Graduate College. However, the appeal will be limited to the following grounds:

1. The procedures relating to the filing of the charges and the hearing of charges were not followed.
2. The decision of the Graduate Studies Committee was biased.
3. The sanction imposed was excessive.

IV. Non-Discrimination Policy

Towson University's policies, programs, and activities comply with federal and state laws and University System of Maryland regulations prohibiting discrimination on the basis of race, color, religion, age, national origin, sex, disability and sexual orientation. Sexual harassment (see following section) is considered a form of sexual discrimination.

Students may bring concerns about discrimination or unfair practices in education to the Fair Practices officer for investigation (Administration Building 211, 410-704-2361). After a student has filed a formal complaint, full information from the complainant, from university records and from university personnel involved in the incident will be gathered, and a determination as to the merits of the complaint will be made.

The investigation will normally be completed within 30 days. If a key person is unavailable or if the complaint is complex,

involves a grade dispute or other academic matter, the investigation may take longer. Every effort will be made to complete the investigation within the term in which it is filed, unless the complaint is filed within the last two weeks of a term, in which case every effort will be made to complete the investigation by the beginning of the following term.

Students are encouraged to bring incidents that they think are discriminatory to the attention of university officials. The university cannot take appropriate action unless it is aware that a problem exists. For more information, visit www.towson.edu/aa.

V. Sexual or Gender Harassment

Sexual harassment constitutes a serious threat to the free interaction and exchange necessary for educational and personal development, and it is entirely unacceptable on this campus. Sexual or gender harassment may range from offensive gender or sexual innuendos to coerced sexual relations. It can happen to both men and women.

Harassment occurs when a person in a position of control or influence uses authority in an attempt to gain sexual favors and thereafter threatens or punishes for refusal to comply. Harassment includes, but is not limited to, suggestive remarks about clothing or physical attributes; leering; unnecessary touching; subtle or direct requests for sexual favors; implied or overt threats; or a hostile sexual environment. Students may bring concerns about sexual harassment to the Fair Practices officer for investigation (Administration Building 211, 410-704-2361) consistent with applicable university regulations. For more information, visit www.towson.edu/aa.

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376 DIRECTIONS

From I-95 (northbound and southbound):

Take the Baltimore Beltway I-695 west (toward Towson). Take exit 25, Charles Street, south. Proceed approximately 1.7 miles. Turn left on Towsontown Boulevard, and proceed to the first stoplight. Turn right on Osler Drive and make the first right to the Enrollment Services Center parking lot.

From I-83 (northbound and southbound):

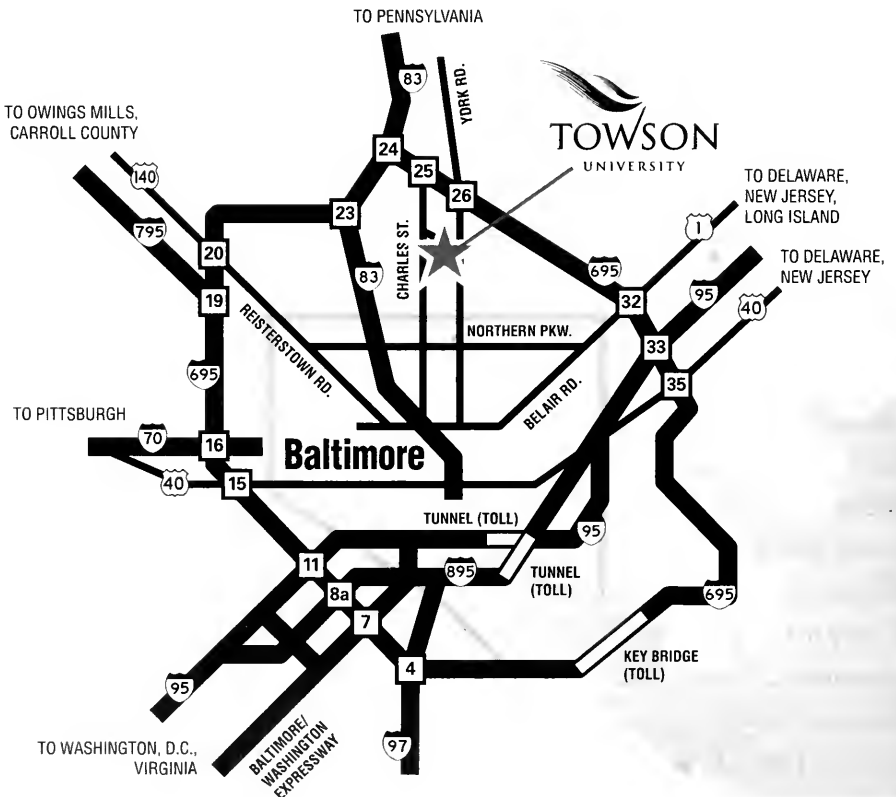
Take the Baltimore Beltway I-695 east (toward Towson). Take exit 25, Charles Street, south. Proceed approximately 1.7 miles. Turn left on Towsontown Boulevard, and proceed to the first stoplight. Turn right on Osler Drive and make the first right to the Enrollment Services Center parking lot.

From I-70 (eastbound):

Take the Baltimore Beltway I-695 north (toward Towson). Take exit 25, Charles Street, south. Proceed approximately 1.7 miles. Turn left on Towsontown Boulevard, and proceed to the first stoplight. Turn right on Osler Drive and make the first right to the Enrollment Services Center parking lot.

From Baltimore (Penn Station):

Proceed north on Charles Street for five miles. Turn right on Towsontown Boulevard, and proceed to the first stoplight. Turn right on Osler Drive and make the first right to the Enrollment Services Center parking lot.





- Parking Information Kiosk
 - Pay & Display Visitor Parking
 - Loading/Unloading (Free Meter)
 - Restricted Parking
 - Construction areas
- Please refer to www.towson.edu for the most up-to-date information

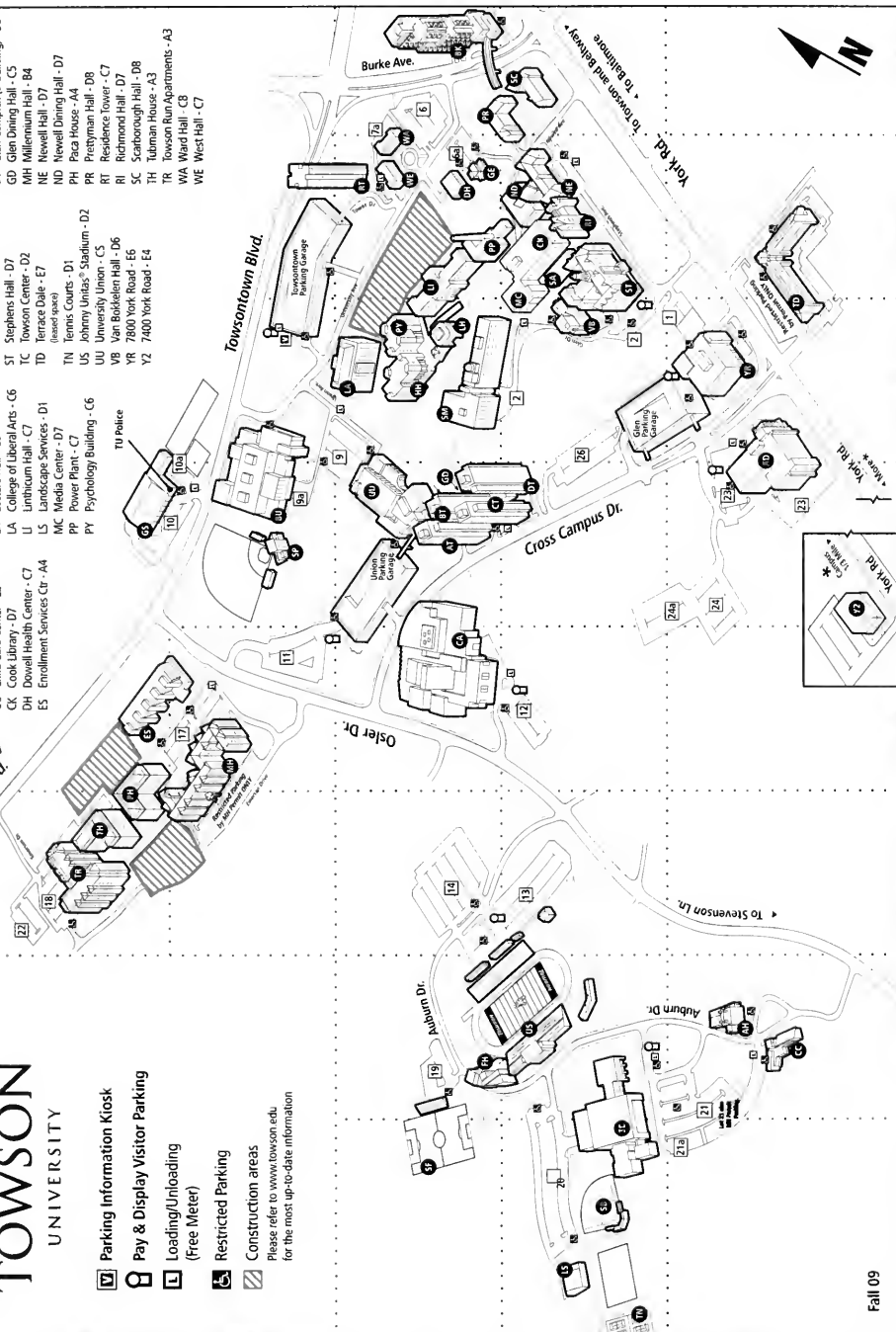
Academic and Administrative Buildings

The Admissions Office is located in the Enrollment Services (ES) building

- AD Administration Building - E6
- AH Auburn House - E2
- BU Burdick Hall - B5
- CA Center for the Arts - C4
- CC Child Care Center - E2
- CH Cook Library - D7
- DH David Health Center - C7
- ES Enrollment Services Ctr - A4
- FH Field House - C2
- GE Glen Esk - C7
- GS General Services - A5
- HH Hawkins Hall - C6
- LH Lecture Hall - C6
- LA College of Liberal Arts - C6
- LI Luthicum Hall - C7
- LS Landscape Services - D1
- MC Media Center - D7
- PP Power Plant - C7
- PS Psychology Building - C6
- PT Police
- SA Stephens Annex - D7
- SB Softball Field - D1
- SF Soccer Field - C1
- SM Smith Hall - C6
- SP Schaeffer Park - B5
- ST Stephens Hall - D5
- TC Towson Center - D2
- TD Towson Center - E7
- TN Tennis Courts - D1
- US Johnny Unitas® Stadium - D2
- UU University Union - C5
- VB Van Bockelen Hall - D6
- YR 7800 York Road - E6
- Y2 7400 York Road - E4

Residence Buildings

- BK Berkshire Apartments - CB
- AT Glen Complex (A Building) - C5
- BT Glen Complex (B Building) - C5
- CT Glen Complex (C Building) - D5
- DT Glen Complex (D Building) - D5
- GO Glen Dining Hall - C5
- MH Millennium Hall - B4
- NE Nevada Hall - D7
- NO Nevada Dining Hall - D7
- PH Plaza House - A4
- PR Princeton Hall - D8
- RI Residence Services Ctr - C7
- SC Scarborough Hall - D8
- TH Taltarn House - A3
- TR Towson Run Apartments - A3
- WA Ward Hall - C3
- WE West Hall - C7



College of Graduate Studies
and Research

Towson University
8000 York Road
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